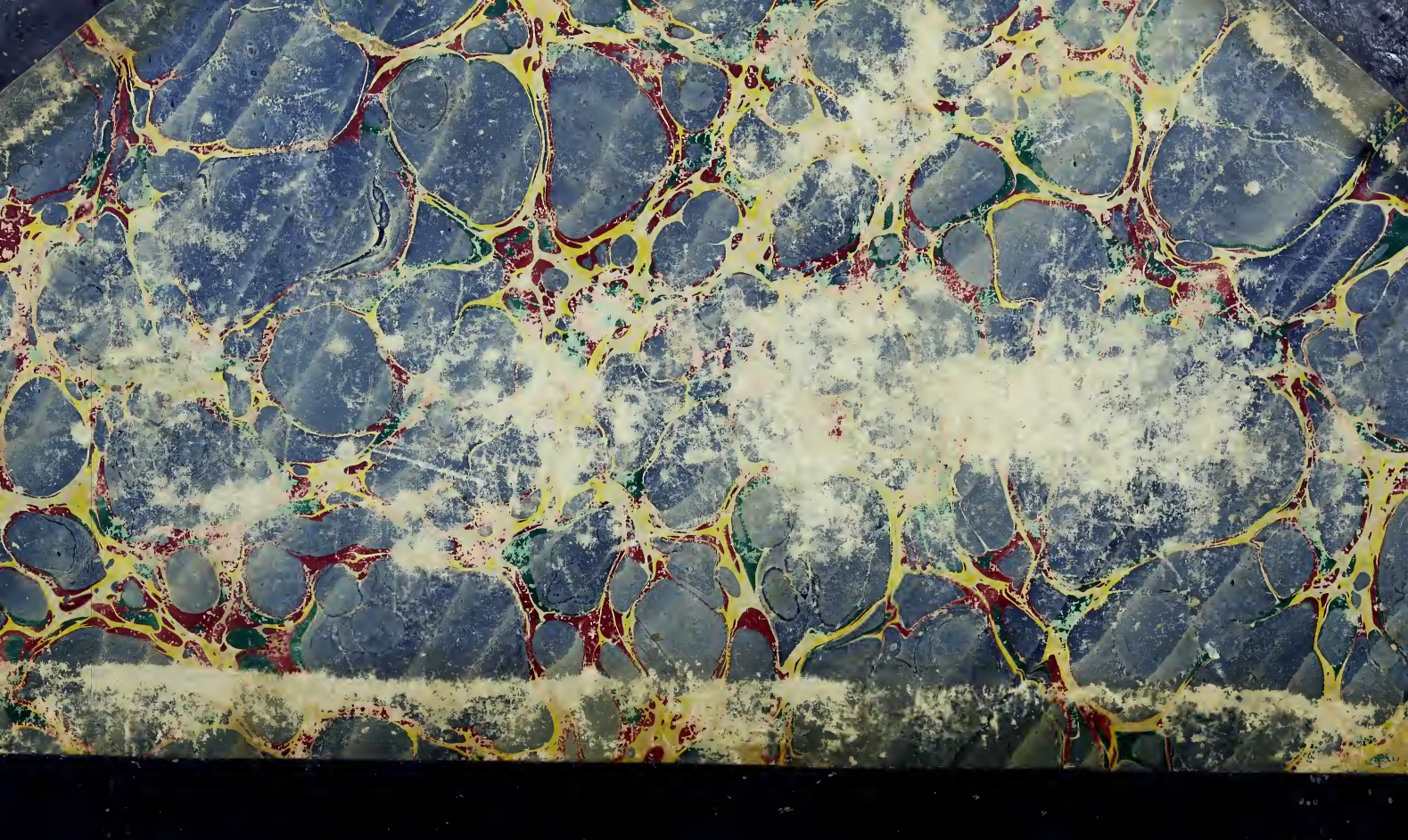

J. J. Dearing

P. P. Dearing
May 25th 1855

THE

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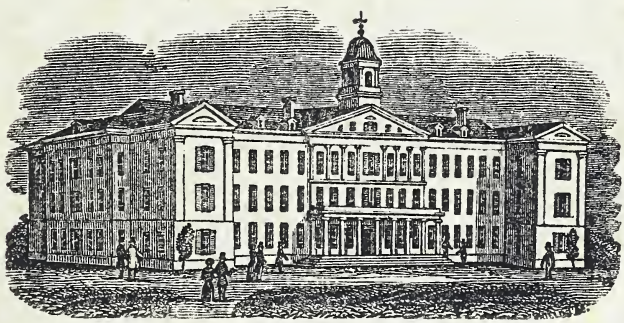
VOLUME IX.

A. HESTER, M. D.,

EDITOR AND PROPRIETOR.

SUMMUM BONUM MEDICINÆ, SANITAS.—*Galen.*



N. O. Charity Hospital.

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To Vol. IX. of the New Orleans Medical and Surgical Journal, from July, 1852, to May, 1853.

THE NEW-ORLEANS

MEDICAL AND SURGICAL JOURNAL.

JULY, 1852.

Part First.

ORIGINAL COMMUNICATIONS.

I.—ON THE USE OF QUININE IN CONTINUED FEVER.

BY WM. M. BOLING, M. D., MONTGOMERY, ALA.

There is considerable diversity of opinion among Southern Physicians as to the effect of Quinine in *Continued Fever*, more especially in Typhoid Fever, which, within the few years past, has appeared to spread itself from the points in which it would seem to have been long known, into others in which it had been but rarely seen. One writer, for instance, R. F. Gibbs, M. D., of De Soto Parish, Louisiana, in the 2d volume of Fenner's Southern Reports, speaking of Typhoid Fever, remarks—"From the mixed nature of many of the cases which came under treatment, and the decided periodicity, I was *reluctantly* impressed with the idea that Quinine would prove a valuable adjuvant in its early stages; but after repeated trials, in doses large and small, I was forced finally to abandon it entirely, as not only useless in every case, but in many cases decidedly prejudicial to the patient." A similar opinion we find frequently expressed by others.

On the other hand, Dr. Thomas Fearn, of Huntsville, Ala., speaking also in the 2d volume of Fenner's Southern Reports, of a continued fever which he calls Typhus,—the symptoms of which, so far as they are given, correspond very well with those of the fever now known among us as Typhoid Fever,—claims to have obtained much benefit in

it, from the use of Quinine; nay, even to have arrested its progress—to have at once cut it short in its course. He gave to an adult female three doses of 20 grains each, at intervals of one hour.

For three or four years past, Typhoid Fever has prevailed in Montgomery, so that at no time, perhaps, or at least but for short intervals in that period, has it been entirely absent from the place. My experience with the remedy in question, in the disease during that time, would lead me to a different conclusion from either of the above—one holding, as it were, a medium between them.

In a very few cases of Typhoid Fever under my treatment, I think I have seen an unfavorable effect produced by Quinine, apparently through a local action on the gastro-intestinal mucous membrane—augmenting the already existing irritation of this part. In a still smaller proportion of cases, I have thought its influence,—not apparently exerted in the manner just mentioned,—upon the nervous system, has been unfavorable. Sometimes it has apparently produced neither a favorable nor an unfavorable effect, while often its influence has been decidedly beneficial.

In some cases the disease, as it appears with us, presents somewhat of an acerbative character; more so, it is probable, than at the North. In such cases, frequently, though not invariably, Quinine given in pretty full doses, will control entirely, or greatly diminish the violence of the exacerbations, and in that event, as may readily be understood, its influence upon the progress of the case will generally be favorable; and I have seen it thus beneficial.

In cases in which the febrile excitement has been running high—the pulse frequent, the skin hot and dry, and the tongue parched and pointed,—with such doses of the remedy as I have ventured to give, I have sometimes succeeded in subduing the high excitement,—reducing the pulse perhaps from 120 or 130, to 90 or 100,—diminishing the heat of the surface, rendering it, indeed, as also the tongue, moist, and the patient's feelings and condition generally altogether more comfortable;—and this improved condition I have seen maintained for days, under the continuance of the remedy. Invariably, however, (with exceptions hereafter to be noticed, where there was reason to believe that a favorable crisis took place independently of the effects of the remedy during the time of its administration) the febrile symptoms have returned on the suspension of the Quinine, and the disease has passed on through its course, apparently unaffected by the temporary interruption, in part, of its progress; as if, though the remedy had exerted its usual con-

trolling influence over the heart and arteries, while continued, it was totally without power or efficacy to neutralize permanently, or effect the elimination of the poison or particular cause of the disease from the system.

It is still remembered by several at least of the Physicians of Montgomery, if not indeed by all of them, how much, after Typhoid Fever became a prevalent disease among us, the friends of patients laboring under it, seemed surprised that their Physicians, whom they had so often seen on previous occasions arrest with so much certainty, often in a day or two, the severest forms of miasmatic fevers, could not succeed in "breaking," as they expressed it, the very slight degree of fever, which, in many instances, was present, in attacks of the former disease in a shorter time than two, three, four or five weeks, or longer; and the dissatisfaction, often expressed in words, or manifested by the countenance, was a source occasionally of no slight mortification. The Physicians of Montgomery had been in the habit of using Quinine very freely, and with great success. Their patients were accustomed to seeing them arrest with it the worst forms of miasmatic fevers, as if with talismanic promptness and certainty, and they could not understand why even slight febrile attacks should be allowed to run on for weeks. It is not probable, then, that the remedy failed to have a fair trial among us, accustomed to the use of it as we had been, and goaded as we were by the friends of the sick to "break up" the fever. They understand these things better now, and bear patiently the tedious attendance of their Physicians, while the disease "drags its slow length along."

It is true, that in one or two instances, in which I barely suspected the possibility of a commencing attack of Typhoid Fever—the existing symptoms being much such as might be present in many forms of slight indisposition—and certainly not conclusively characteristic of the fever in question,—I have succeeded in arresting permanently the progress of the disease, or preventing the attack, if one was really threatened, by a full dose or two of Quinine. It is more than probable that if the Quinine were given about the time at which the disease was reaching its crisis, the febrile phenomena subdued by it for the time, would not be rekindled on its withdrawal, and the delusion might thus be induced, that the disease had actually been cut short by the remedy. Moreover, in several mild cases, in which I have given the Quinine on the 14th, and in one about the 21st day of the fever, the favorable crisis which then occurred, has seemed more decided or marked, than in any cases in which I have not used it, at about the period of the natural termina-

tion. I judge that in the instances referred to, a favorable change may have been about to take place naturally,—in part from an amelioration of some of the symptoms prior to the administration of the Quinine, but more, because in these very cases, the remedy, tried at an earlier period, had failed to arrest their progress. In other cases, too, in which I have given it at certain septenary periods, but when probably no tendency at such particular times to a favorable change existed, the periods have passed without a forced crisis being produced by the Quinine. It is proper here by way of explanation to remark, that oftener than otherwise under my observation, as others have found to be the case also, the change for the better has occurred about the 14th, 21st, or 28th, day, and so on, whenever the date of the attack could be ascertained.

But, though in no case of Typhoid Fever, at least in none after the disease was well characterized, so that its presence could with any reasonable degree of certainty be asserted, have I been able to cut short the malady, unless the cases just referred to may be deemed instances in point, still I claim that much advantage may in many cases be derived from even the temporary subdual or control of the febrile action above alluded to; indeed, under certain circumstances, we might even find it beneficial thus to moderate the violence of the fever, by adequate doses, till it should have reached its natural termination. In this way may we not only render the patient's condition much more comfortable, by diminishing headache, thirst, and the unpleasant feelings of malaise connected with the higher grade of febrile action, but even exert a favorable influence as regards the ultimate result, by preventing the development of various inflammatory complications, which might and probably would grow out of it.

But although I have never myself been able to cut short by the use of Quinine, an unquestionable case of Typhoid Fever, and although it is now, I believe, pretty generally the impression among such Physicians of this section of Alabama as I have conversed with on the subject, that it cannot be so arrested, it is more, whatever my own belief, than I would be willing to assert, that it may not be done. I have never myself given the remedy in Typhoid Fever to the extent indeed that Dr. Fearn did, in the cases in which he succeeded with its use, though I have frequently given it in *mild* cases without this effect, in doses, with which I am in the habit daily of arresting with certainty and at once the most *violent* attacks of the various forms of miasmatic fever. Either then my doses have been too small, or the disease now called Typhoid Fever among us, is different from the cases which were treated with

Quinine successfully by Dr. Fearn, and which he calls Typhus, notwithstanding the striking resemblance between them,—and at all events, in both there is this agreement, that in their symptomology they differ widely from any of our recognized shades of miasmatic fever. Besides the name of Typhus which he gives his cases, Dr. Fearn speaks of the disease as *continued fever*. He does not speak, however, of the post mortem appearances, and notwithstanding the resemblance, I am forced to the belief, that the disease in question was not the one now known among us as Typhoid Fever. I cannot think it possible that this malady, when established in a recognizable form, can be cut short by Quinine. With great partiality for the remedy, and not a little confidence of success, based upon a long and satisfactory use of it in many other diseases, I commenced its administration in Typhoid Fever, and was not less astonished than mortified at the result. Reflecting upon the probable cause of my failure to cut short the disease in its progress, by a remedy from which I expected so much, notwithstanding that I could temporarily control the febrile action, it occurred to me that it might be owing to an inherent tardiness of the reparative process, in the lesion of the intestinal glands. With the view, consequently, of preventing, if possible, this intestinal lesion, by arresting in its incipiency the fever, the *very early* administration of Quinine became a main point in the treatment of the disease with me, till, I think, the experiment was fairly tried.

I have given Quinine in Typhoid Fever, in its various stages, but without observing any difference in its effects, in any way connected with, or growing out of, the period to which the case had extended. I have given it in some cases as soon as the nature of the case was manifest, and in others, at various periods to the termination of the fourth, fifth or sixth week, and still the effect has been the same. I have given it, too, at so early a period, that no one, from the symptoms, could say whether the case was or was not one of Typhoid Fever, and yet the character of the case has been developed and declared after its suspension, and the disease has pursued its ordinary course. Possible exceptions have been mentioned.

As to my doses—in one case I gave twenty grains, repeating it in two hours, and thirty-six grains daily for the two or three succeeding days, in three doses of twelve grains each, at intervals of two hours; always between midnight and day, supposing that the febrile action would be less at this time. In other cases, I have given daily say two doses of 16 grains each, or three doses of 12 grains each, at short intervals, repeated for several days in succession; and again I have kept

up its continuous operation by doses of 8 or 10 grains, repeated every six or eight hours for several days; and always the result has been much the same. Nor have I neglected any adjuvant measures with which I was acquainted, calculated to secure its beneficial influence. I have given it in combination with full doses of Morphia, and I have given it without; I have preceded its administration, where the state of the bowels would admit of it, with small doses of blue mass; I have used the warm foot bath and warm drinks; I have used tepid or cold ablution of the entire surface, and cold drinks.

A similar mitigation of its febrile action to that which I have spoken of as produced in Typhoid Fever by the use of Quinine, I have not only seen produced by it in the various phlegmasiæ,* as we ordinarily meet them here, but also in severe cases of organic disease of a necessarily fatal character, in which it was merely used as a palliative, to keep in subjection, with the attendant fever, various unpleasant symptoms, seemingly arising from, or aggravated by it. I will mention a single case in point.

In May, 1847, J. Luther, a carpenter by trade, had a severe attack of pleuro-pneumonia. He quit bed and commenced work before he had entirely recovered; relapsed several times, and each time pursued the same course, till his health became permanently impaired, and tubercles were developed in the lungs. He finally took his bed on the 10th of September, and died about the middle of November. During this confinement, besides the tubercles contained in the lungs, the right side of the chest contained, in considerable quantity, both air and water. Some four or five weeks before his death, the fever assumed so much the Typhoid character, that thinking it not improbable that Typhoid Fever had supervened upon his other maladies, I looked forward to find in the post mortem examination the ordinary anatomical lesions of this disease. It was not, however, present, in a characteristic form. As to the condition of fever, however—The pulse was corded, varying from 110 to 120—the temporals throbbed—the heat of skin was great, the tongue dry, red at the edges and tremulous, and there was constant delirium. For some two weeks of the time, by the moderate use of Quinine—six grains every four or six hours—the fever was kept greatly subdued; the pulse at from 80 to 90, the skin and tongue moist, and the thirst, delirium, subsultus, &c., greatly diminished. Twice the Quinine was omitted, and the fever, with the attendant phenomena, such as delirium, &c., returned with the former violence. While kept under

* American Journal of Medical Sciences for July, 1844, page 87.

the influence of Quinine, in every respect his condition was decidedly more comfortable than when the remedy was omitted.

Dr. Fenner, in commenting on the cases of Dr. Fearn, gives it as his belief, that the opinion, adverse to the use of Quinine in the Typhoid Fever of the South, pretty generally of late expressed, has been too hastily pronounced; and believing himself that it "is one of the protean forms of endemic malarial fevers," he would expect Quinine, *if properly administered*, to cure it. He moreover intimates, that the failure must be owing to a lack of knowledge of the proper use, and method of administration. Dr. Fenner, however, does not give us the details of any cases, which he himself has succeeded in cutting short by the use of Quinine, nor does he even tell us that he has thus cured a single case. Although in the *most violent* and even complicated cases of the various shades of misasmatic diseases, I, as also members of my professional brethren, administer the Sulphate of Quinine in the quantity generally of from 24 to 40 grains, in two or more portions, perhaps repeated the next day, with the utmost confidence that in a vast majority, the disease will be at once arrested in its progress, I have several times failed, in cases of Typhoid Fever, *of so mild* a character, as to leave it almost questionable whether fever existed at all or not, to produce any thing more than a temporary mitigation of the morbid phenomena, by the remedy in the same dose, and administered, too, in conjunction with all such adjuvant measures as have seemed to me to conduce to its favorable operation under other circumstances. I have used it with this result in cases in which there was scarcely an appreciable increase of temperature of the surface,—the pulse not exceeding 90—no delirium —but little thirst—tongue but slightly dry and tremulous—but the slightest tympanitis—and the evacuations, though liquid, not perhaps exceeding one or two in the 24 hours. Such facts do not seem favorable to Dr. Fenner's views of the identity of the diseases.

It is true, Dr. Fenner tells us, that his experience with Typhoid Fevor "has been too limited to entitle him to speak authoritatively on the subject," while he suggests or asserts, that in it, "Quinine, in large doses, must be given in the forming stage of the fever, or it had better be withheld altogether. * * * * *
If the practitioner is not sufficiently familiar with the action of Quinine in large doses, to venture on from 20 to 30 grains, in combination with one or two grains of Opium, and perhaps ten of Calomel or Blue Mass, at one dose, and within two or three days of the attack, we would advise him not to tamper with this remedy at all," etc. I am inclined to think that Dr. Fenner does not differ much more from the profession

generally, in his opinion that Typhoid Fever may be cut short and permanently arrested in its course by Quinine, than he does in his recommendation of Calomel in this malady, as a general practice, in the dose of ten grains. Judging from my own experience with the disease, as it has prevailed here for the last few years, I would say, that few cases indeed occur, in which a single ten grain dose of Calomel would not exert a prejudicial influence; and that administered generally, it would have the effect of increasing the mortality at least three or four per cent.

Every one interested particularly in the subject, who reads the remarks of Dr. Fenner, must regret that he did not give the grounds upon which his conclusion is predicated, that (believing, as he does, that Quinine will cut short Typhoid Fever) it must be given in the "forming stage"—"within the first *two days, or three at farthest*, from the time the fever is perceived." We are led to infer that it is not based upon his own actual observation. It would seem inconsistent, too, with his belief in the connection or relationship of Typhoid Fever with the "protean forms of endemic malarious fever;" because not even in the very worst forms of these would Dr. Fenner restrict the administration of Quinine to the first three days, but with the utmost confidence of immediate success, would resort to it in most of them at a much later period. It cannot, either, be upon Dr. Fearn's report, for in the only case given at all in detail,—that of Miss Julia Scruggs,—it was not till on the fourth day after Dr. Fearn's examination that the Quinine was administered, and from the very slow and insidious manner in which the disease seems to have been developed, it is not improbable that fever may have existed for several days prior to the examination, especially when we take into account the very decided character of the symptoms which were then presented.

II.—PRESENT HYGIENIC CONDITION OF CALIFORNIA—EPIDEMIC ERYSIPELAS—MEASLES—SMALL POX AND VARIOLOID—PREVALENCE OF INSANITY—INUNDATION OF SACRAMENTO, etc.*

BY THOMAS M. LOGAN, M. D., OF SACRAMENTO.

I resume our correspondence at a new epoch in the medical history of our young State—an epoch, which the most impetuous current of events that has ever borne humanity onwards, has effected. A year

*This letter was written for Fenner's South. Medical Reports. (*Ed.*)

has sufficed to do the work of a century, and California has passed through a succession of lustrations, as thorough as they have been extraordinary. The rich inheritance of life, with all its attendant and prospective blessings, hitherto so rashly forfeited by the suicidal conduct of the earlier immigrants, is now enjoyed by her citizens in a ratio more than compensatory for previous calamities and sufferings; and as the ameliorations and comforts of civilization multiply in our midst, so the allotted period of existence which the Creator has apportioned to his creatures, may be as surely counted upon here, as in any, the most civilized country on the face of the whole earth. Indeed if a strong instance were wanting to confirm the well established point in vital statistics, that in proportion as a community advances in the practice of those hygienic laws and regulations known to be necessary for the preservation of the general health, so is the average term of life prolonged, California may now, *par excellence*, be cited. Her bills of mortality compare favorably with those of the most salubrious countries, and the pestilential territory of a year ago is now the brilliant compeer of her transmontane sister States, in all that contributes to the comfort and preservation of the life of man.

During this transition stage, I have in previous letters endeavored to snatch from oblivion, and preserve for future comparative reference, the salient points of interest to the medical philosopher, and now proceed to subjoin a few remarks, in continuance of my observations on the diseases of California.

Although acclimation, good food, comfortable lodgings and an improved state of morals, render us less liable to the fatal diarrhœas and other diseases which more than decimated the population of past years, still, we are yet far from being exempt from the prevalency of diseases, which depend, in a measure, upon changes that have been slowly wrought upon the human body by past as well as existing circumstances and conditions. The predisposition to *blood* diseases, induced by climatic and other causes, discussed in my last letter on the Scurvy, still persists; for I can only regard the cutaneous disorders that now prevail as so many symptoms distinctive of the character of the new morbid impression ingrafted upon the system. This is a bold assumption, savoring of the old fashioned humoral pathology, but nevertheless sustainable upon the sure basis of organic chemistry, applied according to Liebig's doctrines. By a sort of process of fermentation, the morbid matter in the blood is brought sooner or later into a state in which it is ready for expulsion from the body, and the peculiar eruption—the symptom of the diseased action—is the mode by which it is thrown off.

But I have taken up my pen to chronicle facts, and not to indulge in speculations.

In Nevada and the mountain districts, epidemic Erysipelas prevailed at one time with alarming severity, and many fell victims in the course of a few days from its invasion, to its metastatic action on the brain. Its leading features were a slight tonsilitis, tenderness of the lining membrane of the nose, and ultimately the characteristic inflammation of more or less of the face, spreading downwards in some cases to the neck, shoulders and breast; and sometimes dipping through the skin, and affecting the subcutaneous areolar tissue. In some severe cases the parotid and cervical glands became inflamed, and then and there suppuration set in, and abscesses formed in the cellular tissue in which they were imbedded. The majority of deaths, however, occurred in consequence of the extension of the inflammation to the pulmonary organs.

In Sacramento I have found the affection to be quite manageable; although sometimes erratic in its course, it was generally delitescent. I believe the fatality in the country may be assignable to an inapprehension of the true epidemic constitution of the season. You, in New Orleans, know how dangerous it is to apply indiscriminately in one epidemic the remedies that may have been useful in another, especially in a different locality. At one time and in one place inflammatory symptoms may run high; at another time or in another place, there is an early tendency to debility and sinking.

During the prevalence of the erysipelatous affection here, typhoid symptoms were easily discernible; as manifested by a feeble and frequent pulse, and sometimes a dry, brown tongue. These symptoms were always aggravated by blood-letting or active catharsis. The notion of most of our American practitioners about *cutting short* the disease, by what is called active, energetic treatment, is erroneous, for generally it terminated sooner or later by resolution, whether treated or not, provided the treatment was not too perturbating. It does not follow from this that no interference whatever was called for on the part of the Physician; but rather an active non-interference; not with the expectation of curing the disorder, but of conducting it safely to its termination.

Sydenham informs us that Measles of an unusually bad kind prevailed in London in 1670 and '74, the very same years in which Small-pox was epidemic. Now this observation, from such high authority, is not only corroborated by the present medical condition of California, but also illustrates what I have before remarked; for the simultaneous prevalence of several eruptive disorders surely testify to some change

previously produced in the human body by the gradual influence of certain predisposing causes.

During the last six months Erysipelas, Rubeola, Variola and Varioloid have been prevailing and modifying each other in the most remarkable manner. Indeed so intimate has been the blending of these three latter eruptive fevers, that it has often at times been impossible to say, even for the first hours after the eruption began to appear, which of the disorders predominated. All three were ushered in by rigors, with flushing, gastric distress and fever. All three were liable to have their more open features marked by violent congestions. In all three typhoid depressions and complications, attended with change in the color and other characteristics of the eruption. If such, therefore, was the difficulty in discriminating between these disorders, you may readily infer that there was but little indication for varying the treatment. As far as my experience goes, the problem whether active treatment in the first or second stage of an exanthem will contribute to mitigate subsequent symptoms, is completely solved; for the worst cases of Measles or Small-pox, I saw or heard of, were those in which bleeding and purgation were resorted to, in the early stages, with the view of strangling the disease.

As regards the disposition to other diseases induced by the climate of California, I would add Insanity to the category. The majority of the population being from the Northern States and other colder countries, are sensibly affected by the long, torrid heat of the summer's sun, to which, from the nature of their occupation in California, they are peculiarly exposed. In this way the nervous susceptibility is greatly exalted, and a predisposition to mania and head affections is created. From a report which has been submitted to the Legislature by the Physician of the State Hospital, it appears that in eight months 44 lunatics have been received into that institution. This, it would seem, is more than accrues in any other State of the Union within the same period, however the difference in population. "If," says the report, "in a population of 200,000, there are fifty lunatics in one year, and it being but reasonable to suppose that in one or more this population will increase nearly double, it must strike us all that the number of lunatics in a few years will have accumulated to an astonishing number." Among the exciting causes assignable for the prevalence and increase of this, the most deplorable affliction to which man is heir, may be reckoned the shock of disappointment and suffering, unmitigated by the sympathy of friends, or woman's soothing influence, to be met and overcome by those who have come here buoyant with golden dreams.

The speculative and gambling spirit, too, which pervades the whole community, more or less, the sudden transitions from wealth to poverty, from temperance to excess—the bitter consciousness of blighted schemes, to which the brightest hopes were attached—these, and a variety of other influences, throw into confusion the finely balanced properties of mind, and dethrone reason from her seat. At the present ratio of increase, the necessity of an Asylum, where the unfortunate subjects of this malady may receive the benefits of scientific treatment, is imperiously called for, and it is to be hoped that our Legislature will effect that which every consideration of humanity and public duty demands at their hands.

I have thus drawn up a hasty sketch of all that has occurred of interest, in a medical view, since my last letter, and which the present calamitous inundation of our city, by interrupting all business, and confining us to the upper stories of our dwellings, has afforded me a little philosophic leisure to accomplish, although imperfectly.

In a previous letter I mentioned that Sacramento City resembled New Orleans in being located on an alluvium, subject to the annual overflow of the river banks. Our city, however, is more precariously situated, for being built in an angle, where the Rio de los Americanos flows into the Sacramento, we have two rivers to guard against. When the mountain torrents, caused by the melting snow, swells the one, the other, which empties into the Sacramento, having no vent, overruns its banks, and floods the whole valley, as has just occurred. It was supposed that sufficient protection had been provided against inundation by the throwing up of a levee; this, however, has proved inadequete. I shall watch the effect of this submersion of our city and the surrounding country upon the general health, and at some future day give you the result of my observations.

III.—REPORT OF THE MORTUARY STATISTICS OF MEMPHIS, TENN., FOR 1851.

Made by a Committee appointed by the Medical Society.

COMMUNICATED BY PROF. SHANKS.

At a meeting of the Memphis Medical Society, held March 17, 1852, on motion of Dr. Shanks, [President of the Board of Health] the quarterly reports upon the diseases and mortuary statistics of the city, for

the past pear, made to the Society, were referred to Drs. L. Shanks, W. V. Taylor and John Pitman—a committee, to digest from them a report, to be forwarded to the Board of Health of the city of New Orleans, in compliance with a request made last year, that all interesting information on these subjects should be reciprocally communicated.

In the discharge of this duty the following report is respectfully transmitted to the Secretary of the Board of Health for the city of New Orleans, by the above committee. Its defects and incompleteness will be obvious; but the want of full and complete data must be accepted as their apology for its imperfections.

Mortality in the City of MEMPHIS, *for the year* 1851.
With a Classification of the Diseases.
(Prepared from the Records of the Board of Health.)

DISEASES.	JAN.	FEB.	MARCH	APRIL	MAY.	JUNE.	JULY.	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL.
Cholera.				1	24	47	17			1		4	94
Diarrhœa	3		1	2	3	10	6	3	7	12	5	4	56
Dysentery							1	1	2	1	2	1	8
Chol. Infant.				1	4	20	13	2					40
OTHER DISEASES.													
Digestive Syst.	2		1		4	4	3	4	6	6	2	5	37
Nervous do.	1	2		2	6	8	8	8	6	2	1	4	48
Respirat. do.	6	2	13	7	9	12	11	3	7	2	9	8	89
Generative do.		1				2		2		2			7
Fever remit.		1				4	4	6	13	4		2	34
Do. conges			2		2		2	4	12	14	1	2	39
Do. typhoid	1	1				1	1	1	1	3	1	4	15
Do. scarlet	1												1
Smoll Pox	3	1											4
Dropsy	1				1	1	1	1	1	2	1		9
Cancer	1									1			2
Disease, Heart							2	1	1				4
Erysipelas								1		1			2
Chickenpox											1		1
Exter causes.		3		2	2	2	3	2		2	2	3	21
Old Age		1		1	1	3	1			1		1	9
Not specified	4	13	20	19	14	32	13	22	16	19	13	12	197
	23	25	37	35	70	146	86	61	72	73	38	50	717

Number of Deaths under 5 years	- -	208	
" " " between 5 " & 20	- -	51	
" " " " 20 " & 40	- -	195	
" " " above 40 "	- -	100	
		554	
" " " Ages not specified	- -	163	
		— 717	TOTAL.

Note. The Hospital is a State Institution—is out of the City limits—the deaths there are not reported to the Board of Health, and therefore are not embraced in the above table.

The table showing the mortality for each month, and the aggregate mortality for the year 1851 in the city of Memphis, presents a large number of deaths for the year; the greatest mortality, in proportion to the population, that has occurred in the past 15 years.

Various obvious causes co-operated in producing this unprecedented mortality, which it is important to consider, that their results may be understood and properly appreciated, as they may never occur again, either separately or conjointly, with the same malignity.

Preliminary to a brief general and special account of these peculiar causes, and of the diseases produced by them during the past year, it is proper to furnish some statistical proofs of the statement already made, that the year 1851 was unprecedented for its mortality here.

The last census shows that the city proper contained then a population of 8840—6369 whites, and 2471 blacks. The suburbs a probable population of 3000. The same returns made the aggregate deaths for the year ending June 1st, 1850, amount to 354. This period embraces the most fatal prevalence of Cholera, as an epidemic, in the months of June and July. Notwithstanding the mortality from Cholera, however, the number of deaths during the year only amounted to about 3 per cent of the population of the city and suburbs. The suburbs are properly included, as the city sextons performed their burials and reported their interments.

To this aggregate population proper, additional allowances, also, should be made, for the large proportional number of persons put off from steamboats at this point, incurably sick, or dead, for interment. This item would be equal to half per cent of the above mortality, which would reduce the per centage of the year, from the 1st of June, 1849, to June, 1850, to about two and a half per cent. This period is selected, as the census and returns were made by the officer appointed under the act of Congress, and should be regarded as impartial and reliable.

The following is a brief account of the general character of the weather, and the peculiar local conditions in and around the city, and of the prominent causes of the diseases and deaths during the year.

January was mild and pleasant until towards its close; the thermometer sunk down as low as 17 °—the extreme of cold for the month. A few cases of Small-pox, and scattering cases of Typhoid Fever occurred, but no epidemic prevailed. The uumber of deaths were 22 for the month, and the table shows they were produced from the ordinary diseases of winter.

February was mild. The thermometer at 9, A. M., on the 16th, sunk to 28 ° —the only time during the month, at that hour below the freezing point. Frequent rains occurred ; the aggregate quantity was 8.77 inches. No epidemic prevailed. The number of deaths were 26.

March was mild and free from variations in the weather. The mean temperature was 55 °. Five showers of rain, making a fraction over two inches, occurred. No epidemic prevailed. Bronchitis and Pneumonia were the most common and fatal forms of diseases. Consumption swelled the number from diseases of the respiratory system. The whole number for the month was 37.

April was mild, with occasional showers the first eight or ten days ; then a cold spell, with frost for several days ; the remainder of the month was pleasant. The mean temperature 55 ° ; quantity of rain, a fraction over 2 inches. Diseases of the respiratory system were most common. Hooping-cough prevailed. The last of the month one death occurred from Cholera. The total number of deaths during the month, 35.

May was generally clear and dry, and pleasantly warm. Mean temperature 70 °. Eight showers of rain making 2.88 inches. The latter part of the month the most protracted drought commenced known to the oldest citizens. Though it was general in the Southern country, many sections had the benefit of occasional light showers of rain, to cool the atmosphere and moisten the dust, but these occasional refreshing and healthful showers were almost entirely withheld from Memphis until the latter part of December. During this month 24 deaths are registered from Cholera, 11 from other diseases of the digestive system, and 4 from Fever. Intermittent and Remittent Fevers were more prevalent than usual. Cholera commenced in families who had not been exposed to the disease in 1849 ; having emigrated here from the interior of Mississippi but a few months before the disease commenced among them. They were otherwise rendered more susceptible to the disease from want of proper accommodations, and the imprudent use of crude vegetables and fish. Fatal cases had occurred at various places along the river below, and several deaths on the opposite bank, before it commenced here. No direct communication between the first case here, and cases of the disease elsewhere, could be traced, except the fact that a man who came a short time previously from Arkansas, had died of a disease described as being like Cholera, in the house to which the family moved immediately afterwards, among whom the disease

first commenced, and spread amongst them, their friends and visitors. In a few days, however, cases occurred in various and remote parts of the city, without any probable or satisfactory evidence of direct communication with the disease. In this respect the occurrence of Cholera here in May, 1851, was very different from its commencement here in December and January of 1848 and 1849. Then all the first cases, until the disease had benome general, could be traced to near contact with other cases from a distance, or the infected boats coming from New Orleans.

Total number of deaths for the month was 70 ; most of them from Cholera and its complications with other diseases.

June was clear, hot and dry. Mean temperature 80°. Quantity of rain less than one inch. The register shows 47 deaths from Cholera, 34 from other diseases of the digestive system, 20 of whom were from Cholera Infantum, to which may doubtless be added a large portion of the 32 registered—disease not specified. Of the 12 deaths from diseases of the respirative system, most of them were produced by the Cholera influence.

To the epidemic Cholera, the great excess of mortality of May and June may fairly be attributed. For, although there were more cases of Remittent Fever than usual, except when complicated by Gastro-enteritis and congestion, produced by the epidemic Cholera, it was not fatal. Total number of deaths for June, 145.

July was clear and regularly hot ; but few changes occurred in the temperature of the weather, and but few clouds temporarily overcast the sky. The wind South, Southeast or Southwest. Mean temperature at 9, A. M., was 81.96 ; at 3, P. M., 88.74. The register shows 17 deaths from Cholera, 6 from Diarrhœa, 1 Dysentery, 12 Cholera Infantum, 7 Fever, 13 diseases not specified, most of whom, probably, died of Cholera. The total number of deaths in the month 87. Miasmatic fevers were unusually prevalent.

August was generally clear, hot and dry, with sultry Southern winds. A few light showers of rain during the month, making altogether 1.22 inches. Mean temperature at 9, A. M., 83.90 ; and at 3, P. M., 86.35. This month was regularly hot and sultry, and in consequence of the drought, the nights were peculiarly so. Malarial Fevers were very prevalent and unusually fatal. Total number of deaths 61.

September was remarkable for the continued heat of the days and nights ; the almost entire absence of either cloudy weather or rain.

Only .20 inches of water fell during the month. The mean temperature at 9, A. M., was 76.30; and at 3, P. M., 85.06. The largest number of deaths were produced by the autumnal forms of fever. Total number for the month 73.

October. During this month the weather was regularly clear and warm. Only .85 inches of rain fell. The mean temperature at 9, A. M., was 59.96; and at 3, P. M., 68.16. The large mortality for this month was produced by bowel affections, and fevers of a congestive form, complicated with inflammation of the digestive system. Total number of deaths for the month 72.

November. The register of the weather for this month has been lost, and therefore the mean temperature and the exact quantity of rain cannot be given. The weather was, however, agreeable and pleasant, except for the continuance of the drought, and the consequent great annoyance and discomfort from the dust. The diseases of the respirative and digestive systems produced the chief mortality. Total number of deaths 38.

December. The mean temperature of this month was 40.45, at 9, A. M.; and at 3, P. M., 46.35. The quantity of rain was 4.14 inches, which fell in the latter part of the month. It was altogether a pleasant winter month.

Four deaths from Cholera are registered, and the remnant of Cholera influence increased the mortality for the month. The total number of deaths were 50.

The aggregate number of deaths for the whole year, as will be seen from the table, is 717. Of these—

Deaths under 5 years - -	208
" between 5 " and 20 -	51
" " 20 " and 40 -	195
" over 40 " -	100
	554
Deaths from diseases not specified,	163—717

The census of the city has not been taken since 1849. There is, therefore, no correct data upon which to make an estimate of the per centage of mortality for the past year. The population has greatly increased in the two years and a half since the census was taken; still, the aggregate of mortality for the year ending June, 1849, which was 354, when compared with that of the year 1851, which is 717, shows an increase of mortality, greater than the proportional increase of popu-

lation, demonstrates the correctness of the statement already made, of the unprecedented mortality of the past year.

Now, the true causes of this great mortality in the city, are matters not only of great importance to her population, in reference to their removal or prevention, in the future, so far as practicable; but they constitute subjects of interest to the profession at large, as facts which may aid in throwing some light upon the subject of the causes of diseases, and of sanitary police, when properly compared with other similar facts and observations, showing the influence of such causes of diseases, either singly or in conjunction, in the production of their results. The correct and careful observation and record of certain local conditions; topography, heat, moisture, decomposition, &c., generally admitted to influence the production and the malignity of diseases, afford much more that may be made valuable and useful, than can be furnished by theories and speculation.

The four first months of 1851 give an aggregate of 118 deaths. These months, ordinarily, in Memphis, are nearly as fatal as the average of the year; and notwithstanding the mortality of April was increased by Cholera, the same proportion for the other months would only make an aggregate of 354 deaths for the whole year. This would be more than a full ordinary amount of mortality for the city, with its present population. The prominent causes, then, of the great excess of mortality for the past year, must be traced, from their effects, in the last eight months.

The *first* cause worthy of special notice, is the fact, that an unusual amount of grading of streets and lots had been done during the previous fall and winter.

Numerous, repeated and careful observations have demonstrated the fact, that the extensive exposure of the sub-soil in the Mississippi valley, which is highly vegetable in its composition, is productive of disease when acted upon by the heat and moisture of the spring and summer, in this and the more Southern latitudes.

The *second* cause of mortality, prominent for its effects, which extended through much of the summer, though much marked by its complications with other causes, is demonstrated by its recorded fatality in the table—viz. *Cholera.*

It is needless to add to the opinions and speculations, or the observations, so largely published on this subject, more than the suggestion, that the condition of the city, from its rapid improvement, its extensive gradings, presented a susceptibility to this specific and malignant cause of disease, and thus greatly increased its mortality.

The *third* cause, or causes, require more full and particular consideration, for the purpose of understanding the various influences which produced so large an amount of mortality after Cholera had subsided as an epidemic—a great mortality, extending to the month of December.

These causes merit special attention, as the most reasonable and satisfactory explanation of the great difference between the mortality following the epidemic Cholera in June, 1849, and June, 1851. In 1849, after the Cholera subsided early in July, the summer and fall were remarkably healthy, and the mortality unusually small; presenting a striking contrast with the unprecedented fatality of the past summer and fall.

Fifteen years of observation of the diseases of Memphis have demonstrated the fact, that invariably when the Mississippi river has subsided early in the summer, and there was sufficient rain afterwards to wash off the large batture in front of the city, and to wash out the channel of the Bayou in the suburbs; that the dryer the weather, the more healthy during the latter part of the summer and fall.

To understand how it was, that dry summers and falls heretofore have been most healthy, while the last summer and fall were unprecedentedly dry, and attended with an amount of mortality never witnessed here before, it is necessary that the topography of the city, and the state of things which existed, tending to produce this unusual result, should be considered.

In front of most of the city is a large batture, formed by deposite from the river; much of this is overflowed in high water. Bayou Gayoso passes through the suburbs of the city about half a mile from the river, running in the opposite direction, and empties into Wolf river near its mouth, at the upper limits of the city. When the Mississippi river is high, the back water extends up Wolf river and along the Bayou, so as nearly to reach the Southern portion of the city. The Bayou being thus filled, spreads out, covering the adjacent flat lands, and forms, with Wolf river, an extensive and safe harbor for timber for all the saw mills, for wood for city fuel, and especially for the large demand for the brick yards located adjacent to it, on account of the great convenience of floating timber and fuel to them from the Mississippi and Wolf rivers.

The Mississippi river continued high last summer until about the middle of August, and the extensive surface produced by back water in Wolf river and the Bayou, was almost covered with rafts of timber, for the mills, brick yards, &c. This large surface of dead water, nearly

covered with vegetable matter, was constantly acted upon by the intense heat of the sun; and when the water subsided, and deposited the decomposing timber, and the green stagnant scum of vegetable matter, which had formed upon its surface, they remained subject to the same influence of intense heat, without rain enough, until the last of December, to agitate and partially purify the water, before it subsided, or to wash off the channel and low grounds of the Bayou, after the overflow.

The batture in front of the city, over which the flatboats laid during the spring business season, and upon which all the unsound and refuse vegetable and animal matter were thrown, remained unpurified and unwashed, after the overflow, from the want of the usual rains, presenting its cracked and exhaling surface, charged with decaying matter, during the latter part of summer and fall.

The facts are obvious, from this state of things, that while the streets and lots were parched, from their elevated situation, by the unprecedented heat and drought, that there was ample cause for the atmosphere, constantly loaded with dust, also to be highly charged with malaria.

The river has rarely, heretofore, remained high so late; and during the high water in former years, the dead water in the Bayou has been agitated, and partially poured out, by frequent summer showers; and after it subsided, the filth and decomposable matter in the channel has been washed out by heavy rains. In this state of things—the Bayou washed clean, and reduced to a spring branch, which it really is, in ordinary water in the Mississippi river—and the batture in front washed off, and the cracks in its surface closed by heavy rains—the dryest weather in the summer and fall has always been the most healthy. The cause of this, manifestly, has been the fact, that the small amount of filth and surface of decomposable matter, not washed off, has become too much desiccated for decomposition, and the result is exhalation.

In the past fifteen years, more cases of fever have occurred during high water, when its surface was covered with drift and vegetable matter, and immediately after the water subsided in midsummer, than under any other circumstances.

The past summer and fall these most efficient causes of diseases, as demonstrated from the observations of many previous years, continued in active operation until December.

The result of these co-operating causes was manifest, in the fatality of Cholera; in the specific cause of Cholera complicating and render-

ing more fatal through the summer, the unusual amount of miasmatic or paludal forms of disease ; and thus determining the almost unexampled prevalence of miasmatic influence, to the production of congestion and inflammation of the important vital organs, and especially the digestive system—making all other diseases, by its assimilating influence, more malignant and fatal.

IV.—INTERESTING CASE OF GUN-SHOT WOUND—RECOVERY.

BY J. C. MASSIE, M. D., HOUSTON, TEXAS.

On the 26th March last, I was summoned to see the patient, Peter Oneal, aged about 24. His constitution was good, and apparently free from any hereditary predisposition to disease.

On the night of the 26th, in a rencontre, he received wounds from one of Colt's revolvers, at the distance of a few feet ; one ball passing through the fleshy portion of the right arm, and entering the chest at the margin of the right mammary gland ; the other between the spine and scapula. I saw the sufferer within an hour and a half from the occurrence of the accident ; the attendants were compelled to keep his body in a perpendicular position ; the whole cuticular surface was cold and livid ; the pulse about 110 per minute, tremulous and weak. I attempted to ascertain the position of the balls by probing, but failed in doing so. After having ascertained, to my satisfaction, that the ball which entered at the right margin of the mammary gland, no longer remained in the substance of the thoracic parieties, I refrained from probing the wound farther, which I was satisfied, if persevered in, would produce useless irritation in the parts, probably give rise to hemorrhage, or to have a tendency to push the foreign body still farther in. Consequently I dressed the wounds, and prepared to combat the symptoms as they might arise ; the most important indication to subdue, I knew, would be inflammation of the lungs and pleura. I was in hopes that the extraneous body might escape spontaneously, or, if it was small, that it might be discharged through the mouth, (as we have authority for this) or that it might remain enclosed in a sero-cellular sort of cyst, so as to be always retained in the same place. So soon as reaction took place, my patient commenced spitting blood ; a considerable quantity was raised for a few days ; fever was almost constant for

seven days—sometimes very high. No cough or pain in the chest after he ceased spitting blood ; slight paralysis of the extremities about the eighth day, attended with considerable difficulty in urinating. This comprehends, briefly, all the symptoms that this case at any time presented.

The treatment was the ordinary antiphlogistic means; (without the lancet) digitalis and aconite were administered in large doses to moderate the force of the circulation ; the patient was confined to a very low diet; he drank freely of cold mucilaginous drinks, and had his bowels acted upon by saline purgatives and mild injections.

So far, the case presents nothing unusual in a gun-shot wound ; but on the eleventh day he complained of violent pain in the bowels ; an injection was ordered, and a ball, of a sugar-loaf shape, passed per anum. The ball was flattened slightly on one side, evidently had struck a rib, which changed the direction of its course. (I was present when the ball passed.) Now, could it be possible that this ball could have passed into the parieties of the chest, circumscribed the pleura, passing through the diaphragm, and entering the stomach, without producing extraordinary constitutional disturbance and death if it entered the stomach ? However, I find a case in the American Journal of the Medical Sciences, for 1837, where an Indian was wounded in the stomach, and recovered. This is an anomalous case.

Some six years ago I attended a gentleman who was shot with five buckshot in the right hypochondriac region,and in the course of ten days the balls passed as in this case. My diagnosis in accounting for the balls passing, was, if my memory serves me right, agreed to by my distinguished friend, Dr. Gross, in a conversation with him. I contended that the balls did not enter the bowel, but went with sufficient force through the integuments, and struck the bowels with sufficient force to deaden their vitality, but not to enter ; which contusion produced inflammation sufficient to create a deposition of lymph, which formed a sero-cellular cyst over the ball, confining it to its place ; the contusion gave rise to a slough, which prevents extravasation, and enabled the parts to become united by adhesive inflammation ; in which case, where the bowel sloughed the ball passed in, the cyst left the bowel whole, and the then internal aperture healed by adhesive inflammation. The patient recovered.

Will the same reason answer in the case of Oneal, that the ball struck the stomach, deposition of lymph confined it to its place—the

stomach sloughed, the ball fell in, and the wound healed by adhesive inflammation.

I can find no case similar; nor can I account for the entrance of the ball in any other manner.

The patient recovered, and was at labor on the twenty-second day.

V.—NATCHEZ, (MISS.,) CONSIDERED AS A WINTER RESORT OR PERMANENT LOCATION FOR NORTHERN CONSUMPTIVE INVALIDS.

BY C. S. MAGOUN, M. D.

In the December number of the Boston Medical and Surgical Journal, for 1851, will be noticed an article upon a similar subject, by W. J. Burnet, M. D., with particular reference to Aiken, South Carolina, as a suitable place of resort for Northern invalids, suffering from pulmonary disease. Much of his reasoning is philosophical, and his deductions well founded. Yet, that a lower latitude, other things being equal, would not be preferable, the writer is not prepared to admit.

Natchez, situated in about 31½ ° South, two degrees South of Aiken, equally elevated, remote from sea breezes and influences, easy of access, possessing fine accommodations, furnishing every appliance for comfort, out or in doors, with the world to supply its market, and respond to the demands of his stomach; with ample moral, social, intellectual and physical advantages, to suit the taste or disposition of any one; with a light pure air, a temperature modified and influenced by the cool temperature of the Mississippi river both winter and summer, as its vast volume of water comes from colder climes; a never failing pure supply of under-ground cistern water, with a uniform temperature, hardly ever too hot or too cold—are among the advantages, as will appear by the following tables:

Tables taken from Affleck's Almanac for 1852, compiled from the tables of the late Dr. Henry Tooley, of this city.

TABLE 1st. *Showing the mean monthly temperature of several years of the coldest months.*

MONTHS.	year.	Mean Temp.			year.	Mean Temp.			year.	Mean Temp.			year.	Mean Temp.		
November	1850	48	56	61	1847	54	60	64	1844	54	60	63	1841	53	63	63
December	"	44	47	52	"	45	51	56	"	45	52	53	"	47	61	55
January	"	52	55	63	"	43	47	52	"	49	54	57	"	44	47	49
February	"	47	52	61	"	50	53	60	"	52	49	65	"	48	55	61
March	"	54	60	67	"	52	59	63	"	53	61	65	"	53	62	68
April	"	58	64	71	"	64	72	80	"	65	73	75	"	63	73	77

TABLE 2d. *Showing the highest and lowest points the Thermometer attained during the months of the years specified.*

MONTHS.	Year.	Lowest.	Highest.	Year.	Lowest.	Highest.	Year.	Lowest.	Highest.	Year.	Lowest.	Highest.
November	1850	24	83	1847	26	80	1844	33	78	1841	28	77
December	"	18	77	"	27	74	"	29	68	"	31	74
January	"	32	78	"	21	71	"	33	70	"	19	67
February	"	27	80	"	27	75	"	35	78	"	28	74
March	"	32	84	"	35	80	"	38	83	"	38	77
April	"	40	85	"	48	84	"	47	87	"	51	87

These observations were taken at 5 o'clock, A. M., Meridian, and 4, P. M., and make a favorable showing, as compared with the table of temperature given in the article alluded to.

In regard to the atmosphere, I shall quote the writer's own well timed and appropriate remarks, as applicable to this place: "The general effect of such an atmosphere is to increase the animal spirits—give a mental elasticity, and strengthen the digestive organs; and in a word, one is constantly reminded of his stomach, while he forgets his lungs."

Fogs hardly ever exist, though they prevail on the surface of the river, to the great annoyance of navigation.

The winter air is tonic and bracing, invigorating all the organs, and so equable as to give rise to but few inflammatory affections, and those of the organs of respiration are comparatively rare, in comparison with many other localities. They hardly ever prove fatal, are easily controlled by treatment, and convalescence takes place rapidly. We expect that any given inflammatory affection, such as pleurisy, pneumonia, and the like, can be cured in about one half the time that it takes to accomplish the same result in colder climes; consequently, we can appropriately call our climate anti-inflammatory. In confirmation of this opinion, we might remark, that enteric disease is not common with the temperate, and that Cholera hardly visited this place at all, while it was nearly all around us.

I shall notice but one topic more, and that is the prevalence and mortality of consumption among us, as compared with Massachusetts—supposing this State will make a fair showing for the balance of the Northern States.

The following facts and figures are taken from the ninth report of the Births, Deaths and Marriages of Massachusetts for the year 1850:

"The whole number of deaths 16,606; 3,817 less than during the preceding year; a difference of 18.69 per cent. Of this number 3,527 died of consumption; making the per cent of mortality from this cause 21.96."

Very near 22 per cent. While this is a fearful showing, yet it does not indicate correctly the prevalence of the disease, as a considerable per cent of cases are removed by travel for a change of climate. If the increased per cent of mortality that would arise from this source be added to that in the report, it would probably increase the per cent to 30—all originating there; as it is well known that strangers do not go there with consumption, and thus surely find an early grave.

The per cent of mortality for the past 28 years in this city, from this disease, has been 13.8, and for the last 11 years, 11.328.* This per cent embraces the whole number, strangers as well as those resident and the native born. It is estimated that three fourths of the deaths have occurred among strangers and the unacclimated, who have come here with the disease, seeking to improve their health, but were past all recovery, in very many instances, before their arrival. This estimate is founded upon the sexton's records, and the judgment of the long resident and intelligent citizens of the place. According to this showing, the indigenous cases, those originating among the fixed, stable, resident population, would not exceed three per cent of our mortality; showing a difference between the two places of twenty-seven per cent, or only one tenth as much consumption here as in Massachusetts. Now, in conclusion, I will quote the concluding paragraph of the article alluded to by Dr. Burnet:

"That although the advantages of a change of climate to those who have some lung and strength to work upon, cannot be estimated too highly, yet there are constantly occurring to the medical man cases, in which the expediency of the change requires the finest judgment to properly decide, for it embraces other than medical considerations. Although in advanced cases there may, from such a change, be every reasonable prospect of the alleviation of the severer symptoms that wait upon the fatal termination of the disease, yet its advice must be considered as nearly always quite injudicious. Life may sometimes be a little prolonged, but it is so at the expense of its sweetness. The abandonment of home and friends, and the going away with the chance of dying among strangers, is even more than a serious matter; and I have seen instances, when painful memories, not only to the friends, but to the medical adviser, might well have been spared. And if there is ever a time, when one needs all the comforts of home, and the consolations of near friends, surely it is during the helplessness of the last days of consumption."

Natchez, Miss., April 1, 1852.

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* New Orleans Med. and Surg. Jour., Jan. 1852.

VI.—CLINICAL NOTES FROM PRIVATE PRACTICE.

BY R. L. SCRUGGS, M. D., OF LA.

It has been observed by some acute writer, that he who accomplishes an acceptable essay, need not conclude, therefore, that he is capable of writing a book worth reading; and I would suggest, in continuation of this idea, that it will be found easier, at least for a Physician in full practice, who will observe carefully and take correct notes of the phenomena, symptoms and result of treatment, in the more important cases that are presented to him, to offer something valuable to the profession, in the *way of notes of his cases*, than by attempting, under such circumstances, an elaborate essay upon disputed points, or the more obscure subjects connected with the profession. Under this impression, and being convinced of the propriety of Physicians publishing occasionally the result of their experience, I shall offer, from time to time, as my professional engagements permit, notes of such cases as appear to me likely to repay the trouble of perusal.

At present, I offer you notes of a few cases, taken somewhat at random from my case book. Cases, that appear to have no necessary connection with each other, but appear each to possess sufficient interest to justify its publication.

Hereafter I may attempt to group together such cases as are alike in symptoms, pathology, etc.; or, such as being unlike in many important particulars, yet admit of one general plan of treatment, or the use of some particular article of the Materia Medica; thus showing the value of the agent used, and the varying circumstances under which it may be brought into requisition with a prospect of benefit; or again, such cases, as being so much alike at the commencement of an attack, in the general appearances and symptoms, as to make it an extremely nice point to diagnosticate correctly between them, yet differing widely in their causes, pathology and tendencies; some cases having a natural tendency to terminate in health with but little assistance from medicine, while others, apparently of the same character, to the unwary and inexperienced observer, tend certainly and rapidly to death, unless arrested by the most prompt and energetic treatment. These latter suggestions constitute, in the opinion of the writer, one of the most important subjects for consideration at present connected with the medical profession in the South. Allusion is here made to *Typhus* or Typhoid, and Remittent or Miasmatic Fevers.

There is some difference of opinion amongst our medical men, as to

the identity of the cause of these fevers; a few maintaining that they are merely varieties of the same disease, produced by the same morbific agency, and consequently requiring the same general plan of treatment, with only slight modifications in some particular cases; while a majority believe them to be produced by totally different causes, and consequently requiring treatment diametrically opposite. The one bold, energetic and abortive in its character; the other mild, tentative and *expectant.* It is probably unnecessary for me to state, that I incline strongly and decidedly to the latter opinion, as I have written more than once upon the subject, and will probably recur to it again hereafter.

CASE FIRST.

August 19, 1849.—Visited Hannah, æt. 30, slave of N. S. Found her suffering very considerable pain in the lumbar and pelvic regions; tongue heavily coated; bowels constipated, not having had a passage for four days; pulse natural. Exam. pr. Vag. Touch: uterus prolapsed, cervix enlarged and pointing backwards, pressing firmly against the rectum—that condition called by Dr. Bennett retroversion of the cervix. The whole organ so firmly fixed as to prevent its being moved in the upward direction with the force I thought prudent to exert upon it. Passing the finger anteriorly, just behind the symphysis pubis, it encountered a rather firm, immoveable body, conveying to the sense of touch the size and general outline of the os uteri, with a membrane stretched across it. I could not determine satisfactorily what this was, but concluded, from the position of the os, that it was the fundus of the uterus. I scarified extensively the loins and lower part of the abdomen, and with the cups abstracted as much blood as I could conveniently in this way. A hip bath was then ordered, to be followed by hot fomentations and a warm cataplasm; the bath or fomentations to be repeated whenever the pain or tenderness in the region of the uterus seemed to require it. Gave her pills of Calomel, Ex. Colocynth, C. and Ipecac, with directions to move her bowels, if necessary, in eight hours, with enemata.

18th. This morning I find my patient slightly relieved of the uterine pain, but still suffering a good deal. The bowels not having been moved, the syringe was used repeatedly, bringing away a quantity of black, lumpy fæces, which afforded very decided relief at once. I then examined the uterus again with the touch, and found the organ in the same position, but rather more moveable. The tumor behind the symphisis was extremely tender to the touch and slightly moveable, whereas

the uterine neck bore very considerable pressure in every direction, without giving pain. I then introduced the speculum, which only revealed to the sight what had been equally well ascertained by the touch, to wit: enlargement of the cervix; no ulceration or abrasion of the surface could be detected. She complains of irritability of the bladder; says the urine has been scanty, and thinks it has been mixed with pus. I introduced the catheter without meeting with any obstacle, although she made a little complaint upon its introduction, of soreness of the parts; an ounce or two of healthy looking urine passed, and following the instrument, when it was withdrawn, were a few drops of blood. I then put her upon the use of the Iod. Potass, to be followed in ten days by a sol. Strychnia; and alternated with Tinc. Ferri. Mur., in a bitter infusion; to keep up for some time a slight mercurial action, and move the bowels, when necessary, with any slight aperient; to continue the fomentations and poultices as long as any soreness or pain existed about the parts; to rub the spine twice a day with a stimulating liniament, and to apply a blister over the sacrum within three days, and keep it running for ten or fifteen days. The catamenial discharge, which made its appearance last night, and continues to pass off in sufficient quantity to-day, is thick, dark colored, and offensive to the smell.

19th. To-day Hannah is considerably improved; her bowels have been sufficiently evacuated; the catamenia continues to flow, but in smaller quantity; same color and smell, however, and the womb in the same position; tried to replace it, but failed. Ordered her to maintain the dorsal decubitus as much as possible, and continue the treatment as directed yesterday.

Sept. 12*th.* Upon examining the uterus to-day, I find it in the same position, but somewhat reduced in size. The uterine neck, is, however, still quite large, and seems to be bent upon the body in such a manner as to form, with it, a segment of a circle, with its convexity presenting posteriorly. The tumor above is somewhat smaller than it was at the previous examination, but still extremely tender to the touch. Whether it is the fundus bent forward; a tumor in the anterior parieties of the womb, or an inflamed ovarium thrown out of its normal position, I am not able positively to determine; but I incline to the opinion that it is that malformation of the womb termed antiflexion; and from the impossibility of moving the organ in the upward direction, I am seriously apprehensive that it is tied down by old adhesive bands of organized lymph.

Oct. 2*d.* To-day, I find my patient going about attending to her duties as house servant, without any pain or uneasiness in the pelvic region. She informs me that her catamenia returned last at the regular period, occasioning but slight indisposition, and only for one day. Upon examination, however, I find the organ in the same position, and apparently immoveably fixed, and the tumor above still painful upon pressure.

I may here remark, that I have treated, at different times, quite a large number of cases of uterine disease, and generally am able to decide, without much difficulty, upon the nature of the case; but in this instance I must acknowledge that I was not altogether satisfied to the last.

The history which she gives of her case is briefly this: That about four years ago, while lifting a heavy piece of timber, she felt something give way in the lower part of the abdomen, since which time she has constantly suffered with prolapsus uteri. That her catamenia had been very irregular, and that at each catamenial effort she had suffered intensely. She has been treated by a number of Physicians, some of whom made slight vaginal examinations with the finger, and pronounced it simple prolapsus.

Whether I am right in my diagnosis or not, I think I may urge with propriety the necessity of a thorough examination in all cases, where, after an accident, much pain is felt in the uterine region, with the view of replacing the organ, should it be found displaced; and this should be done at as early a period after the accident as possible, as well to prevent these adhesive bands tying the organ down in its abnormal position, as to correct the constitutional irritation and disturbance—lesions of structure, etc., which must always result, sooner or later, from these displacements.

CASE II.

Mary, black negro, aged 19, slave of Mr. Robert Gallaway, residing fifteen miles east of Memphis, was taken, April 29th, 1849, with violent pain in the stomach—thought by the family to be "cramp colic." The pain and uneasiness continuing to increase, after the bowels had been well evacuated with "Cook's Pills," they determined to call in a physician. When I arrived, at 8 oclock, A. M., on the 30th, her extremities were cold; pulse 80 beats to the minute and extremely feeble; tongue natural; respiration 60 to the minute; pain and great oppression in the epigastrium and hypochondriac regions. Stomach

distended with gas; no thirst; lungs: respiratory movement slightly altered, but no rhonchi; slight pain in the head.

TREATMENT.—Extensive scarifications and cups over the stomach, liver and spleen, followed by hot fomentations; sinapisms to the extremities, and hot corn about the feet and legs. Internally: 20 gtts. Sol. Camphor in Chloroform, which caused an immediate discharge of gas from the stomach, affording slight temporary relief. Directed Calomel grs. iij., Morph., gr. $\frac{1}{4}$, Ipecac, gr. $\frac{1}{3}$, to be repeated every three hours for three times, omitting the Morphia if the pain of the head should return, which had been relieved along with the distress about the stomach, &c.

When I returned, about 5 o'clock, P. M., I found her breathing more oppressed, and a most distressing cough had set up within the last two hours. There was dulness on percussion over nearly the whole of the right lung, with bronchial respiration over the right, and purile respiration in the left lung. Pulse still at 80, and feeble; same weight still complained of about the epigastrium. Wet cups to the right lung, followed by hot fomentations, and afterwards by hot cataplasms to the lungs, stomach and bowels. A solution of Tart. Emetic was then given in elm water, with directions to increase or diminish the quantity, according to the effects upon the stomach; the object being to produce slight nausea, but no vomiting. The second portion, given her after I left, produced free emesis of bilious matter, and it was then discontinued. The fomentations were continued for several hours, which had the effect of relieving the pain and oppression entirely by 10 o'clock at night, when a dose of Calomel, Morphia and Ipecac was administered, and she slept quietly and comfortably during the remainder of the night.

31*st.* Twelve o'clock to-day found her breathing and pulse perfectly natural; no pain complained of any where; slight tenderness upon pressure over the stomach and liver, over which I applied a blister; the bowels not having been moved, I gave her four pills of Comp. Ext. Colocynth, Calomel and Ipecac, with directions to use the syringe in eight hours, if necessary. There was free discharge from the bowels within the time.

Sept. 1*st.* Perfectly free from pain, and all evidences of disease have vanished.

Prescription: Five grain doses of Quinine, three or four times a day, for two or three days; light diet, and the bowels to be kept soluble with oil and turpentine.

This would appear to have been a case of congestion of the portal viscera, extending, by contiguity of structure, to the right lung. Congestive fevers of every variety, affecting each of the great splanchnic cavities, have been rife in that country since its earliest settlement; becoming less frequent, however, each year, as the country is settled and cleared up.

CASE III.

Visited on the 12th August, 1849, Mary, daughter of H. O., Esq., æt. 6 years, 18 miles East of Memphis. When I entered the house she seemed to be in the greatest agony; her face flushed, pulse 120 beats to the minute, but not very full or strong. Her mother, observing my somewhat surprised and attentive look, remarked, "it will pass off in a few minutes." I then learned that she had had several of these paroxysms during the day; that at each time her pulse would become accelerated, her face flushed, and skin dry and hot; gradually it would pass off, when the perspiration would pass off freely, her face become pale, and the pulse reduced. Examination of the abdomen revealed very considerable enlargement of the spleen, distension, by gas, of the stomach, and tenderness in the region of the liver; to which latter part nearly all the pain was referred. Mrs. O. remarked that she had never witnessed such symptoms in a child; that they resembled, more than any thing she had ever seen, "the grinding pains of labor." Wet cups were applied over the liver, stomach and spleen, and, immediately after, hot fomentations; with directions to continue the fomentations for several hours, and then apply a pepper poultice; which latter was to give place to the fomentations again, should the pain return. I then gave her Hydr. S. Mur. and Morph., to be repeated every three hours for four times, the bowels to be moved afterwards with Ol. Ricini and Vermifuge. I requested the lady to carefully inspect the passages from the bowels, and report to me at my next visit. I suspected the passage of gall stones or inspissated bile, with spasms of the gall ducts.

13*th.* No return of pain since my last visit; slept well during the night; bowels well evacuated this morning; evacuations dark, mixed with lumpy matters, the character of which I could not determine, as I did not see them. Passed three large round worms; is in good spirits, and free from fever. Directed Quinine, grs. ij., Ipecac gr. ss., every hour for four times; fomentations over the bowels twice a day for two or three days, after which, blister over the spleen and liver, with friction along the spine; to dress the blistered surface over the spleen with iodine ointment, and give grs. iij. Hydr. c. Creta twice a day, and move

the bowels, when necessary, with small doses of Cream Tartar, Magnesia and Sulphur. After all abdominal tenderness disappears, to give Mur. Tinct. Ferri in a bitter infusion.

27*th.* Her father called at my office to-day, and informed me that the little girl had had no return of fever or pain, but that she had become somewhat jaundiced, her appetite failing, and some puffiness about the face. I gave her a Sol. Iod. Potass 20 grains to the ounce, and directed it to be commenced in 10 drop doses three times a day, and gradually increased to 30 drops, or until its effects were manifested upon the system. Then to use the iron again, and continue the dressing of Ungt. Iod. to the spleen. Learned a short time afterwards that her health was entirely restored.

Although not strictly relevant, we will conclude this article by an attempt to clear away the thick atmosphere of koino-miasmata which seems completely to envelop, and seriously to affect, the mental constitution of Dr. J. C. Harris,* of Alabama. We regard it, however, as a rather difficult task, since his accomplished and scientific friend, Dr. C. J. Clarke, of the same State, seems to have failed in his efforts to clear away the malarial fog which seems destined ever to obstruct his mental vision. It would appear that he rejoices in being one of that select few, who claim to have made the important discovery, that malaria is the cause of all diseases, and ergo, Quinine as the grand and all-powerful antidote. Now, if this theory had for its support only the little word truth, it would justly claim for its promulgators the admiration of the world, and would doubtless revolutionize the whole world of science; changing the occupations, even, of those intellectual and bright spirits of our noble profession, who so unceasingly labor to disclose the hidden mysteries in Pathology, Physiology, etc., forcing them, perchance, from their "labors of love" to the more vulgar, yet probably more healthful occupation, of wood choppers in the native forests of the beautiful Cinchona tree.

Alas, for Dowler, Gross, Gerhard, Marshall Hall, and a host of other luminaries of our profession; thus might they feelingly exclaim—

"Farewell! Othello's occupation's gone!"

Science and skill in medicine would become a vulgar jest and by-word, and "the Doctors" laid aside as a "useless piece of furniture." I must acknowledge that I never could, for the life of me, bring myself to believe that the base metals could, under any circumstances, ever be

* New Orleans Medical and Surgical Journal for May, 1851.

converted into gold, or that the intellect or ingenuity of man would ever enable him to discover a universal Catholicon.

But seriously, let gentlemen reflect for a moment upon the practical effects of this ultraism in medicine. A few years ago, in the great Mississippi Valley, every thing was expected to be accomplished by the use of Calomel. Prof. Drake tells us that some Doctors in Louisiana boasted of having given Mercury enough to one patient to freight a steamboat. I myself have known a man to die with over two thousand grains of Calomel in him, which had been prescribed by a regular Physician. Perhaps our malarial friends of the present day would tell us that had Quinine been used in place of the Calomel, all would have been right.

That forty, sixty, or one hundred grains of Quinine may sometimes be administered without destroying life, I will not take upon me to deny; but that such *horse* doses are either safe or useful, I do very much doubt, maugre the very respectable authority in support of the practice. But even could we believe, for a moment, that it would do no mischief, —a belief that we are very far from entertaining at present,—yet the very strong objection would still obtain against it, to wit: that it is a very unnecessary and wasteful expenditure of a very costly and most valuable medicine.

Now, it must be clear to every reflecting man, that this ultraism in medicine, and consequent over-estimation of the remedial virtues of particular articles of the Materia Medica—this proneness to "hobby riding"—this beautiful simplicity in prescribing, by Physicians, has done more to prejudice the community against us, to bring our profession into disrepute, to foster quackery in all its disgusting forms of "King Cure All's,' Homœopathy, Hydropathy, Thompsonianism, etc.,— than all the real and open enemies of true science could ever have accomplished. Ask the Planter why he trusts the lives of his valuable slaves to the medical skill of his overseer, and his answer is, "that the Doctors say that Quinine can cure all diseases, and my overseer can give *that* as well as a Doctor."

The ravages committed upon the constitutions of a confiding public a few years ago by the outrageous abuse of Mercury, has caused such a prejudice in the common mind against the use of that article, as seriously to embarrass the practice of medicine; making it necessary, frequently, to administer it stealthily, without the knowledge of even the patient's friends. The same prejudice is beginning to be very

strongly manifested against, probably, the next most valuable agent we have, to wit, Quinine, and for the same reason, that Physicians are in the habit of giving it so liberally and *indiscriminately*, as frequently to cause serious consequences, if not death ; such as deafness, blindness, neuralgic pains, etc.

Dr. Harris "cannot, for the life of him, understand how Typhoid Fever can exist without typhoid symptoms." To this we will simply reply, learn the difference between an adjective and a noun ; and learn that a word may be used simply as a name (arbitrarily, if you please) or to express a condition. He must be either a very careless reader, a very unfair critic, or else from *mental* idiosyncracy, incapable of comprehending the simplest proposition in the English language ; and unless he turns from the error of his ways, studies his profession with the view of obtaining correct information, instead of finding fault with the labors of his professional brethren, humble though they be, he will inevitably place himself permanently in the unenviable attitude of the foolish bird alluded to by his friend, Dr. Clarke. Certainly it will be conceded by him, unless he is determined to doubt the correctness of the observations of every writer upon the subject, that there are *varieties* of this disease, and that some cases run a mild course, without, at any time during the attack, presenting typhus or typhoid symptoms, properly so called. These cases are, indeed, frequently the most tedious that we have to treat. Had this variety not existed, there never could have been any dispute about the propriety of the name. But as "there are none so blind as those who will not see," and as we are inclined to give the Doctor credit for a good deal more of intellect than fairness, we despair of convincing him; or at least we do not expect him to acknowledge his error. With the "lights" before him *now*, however, we hardly think he will have the hardihood to deny the *existence* of Typhoid Fever in the "Sunny South."

We strongly suspect Dr. Harris to be in the dilemma of some that we wot of, who, failing to recognize the difference between two diseases, which, having some symptoms in common at the outset, yet differ widely in their nature, and in the indications of treatment, are so much chagrined at the mistake they have made, that they refuse to acknowledge it, although fully convinced of their error ; reminding us of the horse-jockey, who, having inadvertently stated that his horse was seventeen feet high, deemed it important to his honor to maintain the correctness of it afterwards. I trust, however, that he is not like them in some

other respects; willing to profit in their *practice* by the lesson taught them, yet not only denying the source from which they obtain their information, but even casting reproach upon its authors; reminding us strongly of those plagiarists who not only steal from others, "but, like the harpies, befoul and bespatter those whom they have plundered."

VII.—OBSERVATIONS ON YELLOW FEVER.

BY J. C. MASSIE, M. D., HOUSTON, TEXAS.

A. Hester, M. D.

Dear Sir—Your past favor, requesting me to "write for the Journal whatever I might see fit," has remained a long time unanswered, and as the season is approaching when we may expect *Yellow Fever*, and as I have been frequently interrogated "as to the causes of this fever, and whether the same is contagious, and my views of treatment," I have concluded to trespass on your pages.

Epidemic diseases are chiefly of the acute or febrile class; they are apt to prevail in the spring, but frequently in the summer and autumn; happily for us, and makind in general, that our ignorance of the causes of many epidemic diseases does not destroy our interest in the study of their pathology. If medical gentlemen would be contented to look calmly into the many series of events belonging to epidemics, and set aside their hypothesis and conjectures, we would not be so much at a loss to account for the causes as at the present day. The records of pestilential epidemics present us with various opinions and statements, and frequently as much at variance as it is possible for any two different theories to be; truth, however, is sacred, and error cannot be disseminated without producing harm; how important, then, is the duty of medical observers to investigate fairly and impartially, and to report with truth and fidelity.

We have examined this subject to some extent, (as to the causes producing it in this city) but as we do not intend an elaborate article, we will content ourselves by merely alluding to the most prominent facts. As far, therefore, as we are enabled to form any general conclusions in regard to the circumstances which conspire, in many cases, to produce a pestilence, the following are substantially our deductions:

1st. Intemperature of the air, or peculiarly irregular weather.

2d. Local impurities, the result of putrefying substances, more espe-

cially of *animal* matter, if located in marshy situations, produce miasma, which aggravates the preceding causes by polluting the atmosphere.

3d. And (I think very important) human secretions and excretions; the latter become virulent by accumulation, and almost poisonous during a fever, "which always," says a distinguished author, "is the cause of the fever acquiring a degree of malignity which is proportioned to the congregated mass."

We do not wish a latitudinous construction of this sentence, so as to infer that we are willing to concede to authorities of considerable respectability, that the solution of the question is to be found in all cases in the filth of the town or the state of the sewers; *though we are free to admit they are great auxiliaries.*

4th. Green timber, or any other vegetable matter, emits a very offensive miasma, if suffered to remain in stagnant water.

We find that a great many authors lay great stress on the signs which are the antecedent indications of an epidemic, "such as intemperate seasons and unusual weather, (which we think quite likely) great mortality among any species of the lower animals, and great scarcity among birds," the singular changes which have been observed to occur in the common varying diseases of the place before, during and after an epidemic, the facts connected with epidemic pestilence, *and on the other hand, the exemption of those places where due attention has been given to cleanliness and a rational system of health police.* Mortality among animals very frequently follows intemperature of the seasons. In the pestilence that raged at New Orleans in 1819, "we are told that cattle died, horses, oxen and cows, with rotten tongues; sheep and hogs with their hoofs dropping off, and calves, with rotten ears."

To found, however, any truth on science, we must have strict recourse to our general and impartial observations; a solitary isolated fact is only valuable so far as it may tend to establish general laws. There is no question, however, in regard to one fact, that at the commencement of an epidemic the proportional mortality is always greatest. We have always another very remarkable fact in all the cities and towns in Spain which suffered with Yellow Fever; they were, with the exception of Cadiz, extremely filthy, even disgustingly so; and a fact worthy of notice, that Cadiz escaped very lightly, in consequence of a *rigid system of police which had been adopted*, and the result was, as history testifies, that they seldom have suffered since. *And I would here most respectfully suggest for your consideration, that if a prudent*

and systematic adoption of police should prove of benefit at the very time of an epidemic, to lessen the mortality and to mitigate the disease, as it has often been found to do, how much more should such measures prove beneficial, if practically adopted in any city, as the constant and most efficient means of preservation.

In regard to contagion, I hold that it is not a necessary incident to any disease of this class. Medical men themselves, as well as the public, are worn out with statements from different authors, and " indeed they may well wonder at the imperfect state of science which has not settled points of so much importance." During the last fifty years, medicine has assumed more of the character of an exact science than it held before ; and of the history of *contagion*, little is known for the space of a century after its origin. In 1545, we are informed by ancient authorities, that Pope Paul III. convoked reluctantly the Council of Trent ; and being anxious to remove the Council to Bologna, he was very slow in contriving means for the accomplishment of his purpose. An epidemic was prevailing in Trent at the time of the assembling of the Council, and availing himself of this circumstance, the Pope caused it to be proclaimed that the disease was contagious, and therefore dangerous to the health and lives of the fathers. In this proclamation he found no difficulty in inducing Physicians and others to concur. A committee of enquiry, composed of prelates, was formed by Cardinal Morito, (I quote from memory) who was an artful man, and easily controlled by his Holiness ; and before this venerable body, *Frucastorius*, and many other Physicians, (who, from bribery, says history) being solemnly examined, testified to the Pope's opinion. " The consequence of this manoœuvre was threefold ; the Council was removed, his Holiness gained his end, and the belief in contagion established by authority of the Church."

And it is but too true, from facts, that that scheme of protection has descended, with but slight modifications, to the present time. It has been sustained by authority of the Romish Church ; and in modern days it has been sustained principally from this precedent; for we are bold to say, that nine-tenths of the Physicians of the present day will accord with us in saying, that truth and science, from investigation, have afforded it no support. To exhibit some of the many ridiculous causes assigned, and the testimony submitted on the part of those who were anxious to establish the principle of contagion, it may not be amiss to recite a few of the facts from the most enlightened witnesses. They were as follows :

"A fur or leather cap, worn 35 years previously, by a person with pestilence, communicated the disease to 25 Germans in Verona, and destroyed them all."

"A feather bed, in which a pestilential subject had lain, on being shaken up some years afterwards, in Waterslau, produced a fever, of which 9,500 persons died."

"A rag, which had been infected fourteen years before, on being thrown out of a window, sent its plague poison abroad, and produced frightful mortality."

On the authority of these absurd tales, says a distinguished author and many others which I could recite, equally as incredulous—("as, for instance, this: in modern days quarantines are established for forty days." Why forty days? Is it from the fact that it is the usual time allotted to *dog days?* but I presume it is from the fact that it corresponds with the forty days *lent*). Upon all of this has a judgment been passed, and a code of laws been established, which the accumulated experience and wisdom of centuries have not yet set aside. It seems to us in the nineteenth century that it is time for science to obliterate, even from the pages of the past, a demon that has even shackled commerce. And yet, there are not wanting individuals of distinction, who still endeavor to maintain their truth, and perpetuate their influence. And I will here remark, so far as my knowledge extends, that every candid and well conducted enquiry into the hypothesis of contagion, has resulted unfavorably to it. Dr. Rush was candid and honest enough to recede from his first positions; and it is admitted by high medical authorities, that among the former advocates of contagion in the West Indies, scarcely one can be found in the present day.

Dr. Bono, who resided in the West Indies for a number of years, and whose opinions on *Yellow Fever* are entitled to great confidence, says, "I have proved in the naval hospital that the Yellow Fever cannot, by any possibility, be communicated from one person to another."

In 1823, in this country, while 567 Physicians were against the doctrine of contagion, 28 only were in favor of it; "and in this generation an equal unanimity prevails in the profession as to the non-contagious nature of the disease; and he who advances the opposite doctrine seriously, is deemed no more worthy of notice, much less a refutation, than would be an advocate at this time of the Ptolemaic System."*

"We do not allow the fever commonly called the Yellow Fever, to be infectious." This opinion is supported by many American authors;

* Amer. Jour. Med. Sciences, 1829, p. 573.

but at the same time we must admit that a vessel may be the seat of infection, and convey the disease from place to place; and we see that it is lately contended, that if the place to which it is conveyed be extremely filthy, the probability is, that it may find an affinity in the atmosphere, and it may act as a spark to ignite the whole material; but we should most rigidly observe, generally, that the great error in attributing to contagion, that which should honestly be attributed to accumulated causes of filth and decomposition of vegetable and animal matter, as stagnant water, etc.

As regards the treatment of Yellow Fever, I would simply remark, that with the mass of practitioners, it is as much at variance as the cause. The rationale of Mr. Wilson I deem worthy of attention. He admits, as I presume all will, "that in many cases the resources of our art have little influence in its worst forms." "He even goes so far as to say, that this fever is utterly beyond control; and indeed it is not permitted us to be too sanguine as to the efficacy of any remedy in even a seemingly mild case of the disease."

It has always been a matter of astonishment to me, in epidemics, that no treatment, during their prevalence, ever commanded the general assent. Some place their reliance on active and vigorous depletion; others extol Calomel to *ptyalism*. The latter in the United States and England, has more advocates, probably, than any other. "Although M. Louis and other distinguished gentlemen contend that the liver is the only organ constantly, and more or less uniformly altered." The same opinion is entertained by a very distinguished and truly scientific gentleman of Galveston, Dr. A. Smith, (if my memory serves me right) yet the former contends "that experience has sufficiently proved that no dependence is to be placed in mercurial preparations of any sort."

As to the former treatment of depletion, venesection, &c., we hold it of *extreme* doubtful utility, if not absolutely improper. I have had some experience in the treatment of Yellow Fever, during my residence upon the Mississippi, and have treated some cases in this city. Upon the first symptoms of the disease, I recommend a warm mustard pediluvium to the extremities, sinapisms to be applied immediately after, a large one between the shoulders, to arrest the hot stage, and produce a free determination to the surface. We use a small portion of the pure Tincture of Aconite, repeated at short intervals until the desired object is effected. (From this you may draw the inference that we are a Homœopathist—not so; I am an Eclectist, in its broadest sense, believing there is some good in each of the different systems, and it is my

duty as well as privilege to investigate and cull therefrom. After which, four ounces Rochelle Salts, with or without 2 grs. Tart. Ant., given in small doses during the twenty-four hours. But if there is an obstruction in the gall ducts, as manifest from the absence of the biliary secretions, I do not then hesitate to combine a few grains of *Sub. Hydrg.* or *podophylline*, with a grain of Opium, and continue until biliary secretions re-appear. Enemata we generally have recourse to as useful auxiliaries. Frequently we have seen the disease localize itself upon the bowels, and commence a termination by active hypercatharsis; in this stage astringent injections of Opium, Catechu and Starch will most frequently avert it. Quinine we commence with at the outset, with 10 grain doses, (we view this dose as a sedative) with a small portion of Sulphuric Acid, as the circumstances of the case dictate. Frequently, however, any treatment has to be varied, from the fact, in the majority of cases, that great irritability of the stomach is always present; and if cupping, epispastics, or sinapisms fail to allay irritability, we have frequently seen the following prescription do so:

℞	Lemon Juice,	℥ i	
	Sub. Carb. Ammonia,	ϑ ii	M.

And when the effervescence has ceased, add common Syrup 2 ounces, Camph. Mixture 1 ounce, and give from one to two table spoonfuls every three or four hours; frequently a drop or two of Kreosote in milk will allay the irritability; and as a dernier resort, and I have seldom seen it fail, a blister along the spine is a valuable auxiliary. In regard to treatment, we are general, as we would occupy too much space to be special.

We would remark that we have modified our treatment in some cases, substituting Oil for Mercury or Podophylline; but we are not prepared to say that it is ever attended with any better success.

The sequelæ, prognosis and morbid appearances are important, but we have already, we fear, trespassed too much upon you.

VIII.—THE MOTIVE POWER OF THE BLOOD.

BY ALBERT WELLES ELY, A. M., M. D., OF NEW ORLEANS.

Some years ago Mrs. Willard, a distinguished teacher of Troy, New York, promulgated a new theory regarding the circulation of the blood in the human species. She had matured her theory as early as 1839; but owing to the many discouraging opinions of nearly every one to whom she presented it, she did not publish it until 1846. The book was read, laid aside and forgotten, not one solitary person of any note venturing to subscribe to the theory announced. The work was, however, by no means treated with contempt. Coming from the pen of a distinguished lady, this alone was sufficient to insure it a perusal. It was carefully examined by the learned, both of Europe and America; but it was universally condemned, as a theory the result of a too hasty deduction; as opposed to many well established truths in physics; and as one not accounting satisfactorily for well known phenomena.

The theory, as announced by Mrs. Willard, in her own words, is, "*that respiration, operating by animal heat, produces an expansive power at the lungs, and thus becomes the principal efficient cause of the blood's circulation.*" She maintains that the oxygen of the air inhaled heats the blood in the lungs, and causes it to expand with a force sufficiently great to produce the circulation, as seen in the human body; that the heart, from its position in the body, was not designed to be the principal force* to carry on the circulation; and that the only use of the heart is to open the valves and convey the blood to the lungs.† She makes the heart a mere valve-opener and feeder of the lungs.

This strange theory, as we have said, was read, laid aside and forgotten. Physiologists have not even deemed it worthy of a notice in their works. Mrs. Willard has attempted, in her work, to refute some of the objections urged against her theory, but we think she has not succeeded. We are disposed to give her all praise for her ability, but at the same time truth and science require us to say, that her denunciation of the theory commonly received by physiologists is hardly justified by her facts and her logic.

The almost perfect oblivion into which Mrs. Willard's theory had fallen was suddenly revived by a letter from our distinguished citizen, Dr. Samuel A. Cartwright, dated December 1, 1851, addressed to Mrs.

* Motive Powers of the Blood, p. 45.
† Ibid., p. 42.

Willard, and published, along with her reply, in the *Boston Medical and Surgical Journal*, on the 7th January, 1852. In this letter Dr. Cartwright announces the resuscitation of Mrs. Willard's theory of the motive powers of the blood, by a phenomenon, which, he declares, has established it "beyond all doubt or dispute." This phenomenon was witnessed by Dr. Cartwright, at the vivisection of an alligator, by Dr. B. Dowler, on the 20th August, 1851. The animal had been killed, as was supposed, by tying the trachea. In about 30 or 40 minutes after the ligature was applied, the animal was laid on the dissecting table, *apparently* quite dead. After exposing to view the thoracic and abdominal viscera by Dr. Dowler, the lungs of the animal were inflated by Prof. C. G. Forshey. In about seven minutes the animal was, in the language of the latter gentleman, "wide awake and ready to defend himself." His actions were so vigorous, that it became necessary to hold him, and tie him to the plank, in order to continue the vivisection. Such are the facts, as given by Dr. Dowler, Dr. C. R. Nutt, and Prof. Forshey, who were present at the vivisection.

Now, the great phenomenon perceived in that vivisection, by Dr. Cartwright, and which, as he declares, has established the theory of Mrs. Willard "beyond all doubt or dispute," and "clearly proved that the *primum mobile* of the circulation and the chief motive powers of the blood are in the lungs, and not in the heart," is the simple fact, that the animal was resuscitated (after strangulation by tying the trachea) by inflating the lungs. This is the sole fact upon which Dr. Cartwright bases his adhesion to Mrs. Willard's theory, and which he mythologically declares to be her "apotheosis."

The subject has excited an animated discussion in the pages of the *Boston Medical and Surgical Journal*, and we propose in the present paper to examine some of the arguments by which Dr. Cartwright endeavors to maintain his adhesion to the new theory.* The high standing of Dr. Cartwright as a citizen, a physician, and a man of learning and ability, entitles his observations and arguments to respect and examination. He will therefore, we trust, look upon this review of his opinions as prompted solely by a regard for truth and a love of science. Truth is all we care for, let it come from what source it may; and we trust, furthermore, that we are not too tenacious of our opinions to be ready to surrender them for others the moment we discover our error.

* Dr. Cartwright and Dr. E. E. Marcy, of Hartford, Conn., are the only ones who declare themselves converts to Mrs. Willard's theory, in the United States, if not in the whole world.

"The chief motive power of the blood is in the lungs, and not in the heart," says Dr. C. This he thinks is demonstrated by the above experiment with the alligator; but *how*, is the question. Admitting the resuscitation by means of inflation, does this resuscitation prove that the chief motive power of the blood is in the lungs? By no means. When resuscitation takes place after inflation, what must have been the first internal movement that preceded the first signs of life? Evidently, the circulation of the blood through the arteries and veins. But what proof have we that the blood began to circulate first, before the heart began to act? According to Mrs. Willard's theory, in a case of resuscitation, the first movement is that of arterial blood in the lungs towards the heart, caused by heat alone, generated by the oxygen of the air; and the second movement that of the heart. But this is, at best, a bare assumption. It cannot be shown, that in a case of asphyxia, by strangulation, or tying the trachea, the first movement of the circulation takes place in the lungs, on applying artificial respiration. The artificial respiration fits the blood for circulation, and nothing more; and if, at the same time, the heart can be made to act, the circulation is established, and the resuscitation follows. Hence it is that in restoring these asphyxiated, by any means whatever, mere inflation of the lungs is always insufficient. The blood cannot be made to circulate by that means alone. Means of raising the temperature of the body, and of stimulating the nerves and nervous centres are required, so as to get the heart into action, and then the circulation and animation follow. Cases of resuscitation from drowning have occurred, in which inflation of the lungs was not resorted to at all. Friction and external appliances to communicate heat to the system, were all that were required; and it is highly probable that all cases of asphyxia require these.

In the case of the alligator, vivisected on the 20th of August, 1851, which made Dr. Cartwright a convert to the new theory, and caused him "to become one of the standard-bearers of the *Filia nata Jovis** of the New World," we doubt whether the alligator was really asphyxiated; for the ligature was not about his trachea more than an hour. Dr. Dowler says about 30 or 40 minutes; Prof. Forshey 20 minutes; and Dr. Cartwright about an hour. Now, how is it possible that the alligator in question could have been asphyxiated, or stone dead, or dead at all, after having a ligature about his trachea for only one hour, at

* Mrs. Willard has assuredly too much good sense not to disclaim this inflated compliment of Dr. C.

most ; when it is well known that alligators can remain under water almost any length of time ? They are known to lie at the bottom of lakes and pools of water whole days, without coming out to take the air. How, then, can an alligator be killed by tying a ligature about his trachea ? Undoubtedly they become stupid on the application of the ligature, and that they remain so for a time. When they go to the bottom of lakes, they lie there perfectly still and stupid, apparently, until, after a long time, they arouse themselves and come out.

But we have proof positive on this point. We know, positively, that a ligature about an alligator's trachea for one hour only, will not kill him. I will cite a case : On the 6th of May last, the trachea of an alligator was tied by Dr. Dowler, in the presence of others of this city, for the express purpose of repeating Dr. Cartwright's experiment of inflating the lungs, made on the 20th of May, 1851. The animal became stupid, like the other, at first ; but just as they were preparing to inflate, the animal, who had appeared dead, suddenly revived *of his own accord*, and fought the by-standers most desperately, *in spite of the wicked ligature about his trachea ! !*

What, then, becomes of Dr. Cartwright's statement, that " it is a remarkable fact that tying the trachea is the only means by which that animal can be expeditiously killed ?" And what, too, becomes of the proof, afforded by the experiment of the 20th of August, 1851, of Mrs. Willard's theory ? Is it not highly probable, that that alligator was no more suffocated to death than its brother martyr to the cause of science of the 6th of May, 1852 ? Undoubtedly it would have revived, with the ligature about its trachea, if let alone. If Dr. Cartwright had suffered the alligator to remain undisturbed a little longer, he would have been spared the pleasure of recording the apotheosis of Mrs. Willard, and of congratulating her on the probable happy result of her new theory—the discovery of " the art, so long sought by the ancients, of making the old younger, children healthy, men vigorous, and women pretty."*

Dr. Cartwright will please excuse me for my seeming incredulity, for I am never over-disposed to take too much for granted. His Boston opponents, who probably never saw an alligator in their lives, are excusable for not questioning the data of the case.

Dr. Cartwright states, that the heart of the alligator (vivisected on the 20th of August, 1851, by Dr. Dowler, and upon which alone he bases the " demonstration" of Mrs. Willard's theory) was dead and

* See Dr. Cartwright's letter in the Boston Med. Jour. of Jan. 14, 1852.

cold—that he took it in his hand—that not a motion or sign of life occurred. We do not question that he took the heart in his hand, and that it felt cold. He probably knows that the heart of an alligator always feels cold; but as to the heart having ceased to contract, in an alligator like that, just killed, we think there must be some mistake. The heart of the alligator is the last thing to die. It will contract itself for hours after being entirely removed from the body. Neither Dr. Dowler nor Dr. Nutt, who were present, observed that the heart was dead, although Dr. Dowler performed the dissection. These facts, together with another, that Dr. Cartwright did not write his account of the experiments to Mrs. Willard until some months had elapsed, leave room for supposing that there is some mistake about the heart being dead. We think it could not be so. The heart of an alligator, five or six feet long, is small, and contracts slowly and at considerable intervals. If the heart still contracted, in spite of the ligature about the trachea, the circulation must have been going on, and therefore the inflation of the lungs did not start the circulation.

The circulation of the alligator is independent of respiration, as is proved by its being able to remain under water for whole days, and by the experiment of the 6th of May last, in which the alligator, with his trachea tied, revived of himself, after lying stupid about half an hour. The structure, too, of the circulatory system, in the alligator, is precisely such as would lead one to suppose that he could live without breathing, and even with a ligature about his trachea. About one half of the blood in the alligator circulates constantly through his system, without ever going to the lungs at all. His structure is such, that it appears to be optional with him whether his blood be ærated or not. Like all other animals, he can live as long as his blood circulates, and this must take place, whether he is at the bottom of lakes or basking in the sun on their shores.

It is certain, indeed, that the respiration of the alligator is very slight. It requires the closest observation to discover that it breathes; for there are none of those external movements of the throat and chest so marked as in other animals. It probably draws its breath very slowly, and at long intervals. The blood of the alligator is destitute of that bright red color of the blood of other animals. The mechanism of these animals, indeed, indicates that they were not to be much troubled with respiration; for they have no diaphragm, and force air into the lungs by a process resembling deglutition or swallowing; so that,

strange as it may appear, says Dr. Carpenter, a reptile may be suffocated by propping its mouth open, thus giving it too much air.

It is, we think, well established, that the alligator can live a long time without air, and that its respiration is very trifling, compared with that of other animals. I ascribe the great and sudden excitement, and powerful muscular strength which the animal exhibits when its lungs are artificially inflated, as in the experiment before mentioned, to the unnatural quantity of oxygen thrown upon the lungs at the time, which acted upon the animal with its well known stimulating powers.

The fact that the blood in the alligator circulates, whenever the animal chooses, without respiration, completely overthrows Dr. Cartwright's theory. To the objections urged against the theory, derived from the cold-blooded animals, Mrs. Willard replies by simply saying, that "there is too much difference between the circulation in a human being and that in a fish or reptile, to enable us to reason from the one case to the other." Mrs. Willard and Dr. Cartwright seem to have forgotten this statement; for now they declare that their theory is established "beyond all doubt and dispute," by a single experiment made upon the lungs of an alligator.

The case of the fœtus, *in utero*, is equally fatal to their theory; for the heart of the child beats, and the blood circulates, with greater rapidity than after birth, for several months, and that, too, in the absence of all respiration, of course, and of all connection with the circulation of the parent. This objection, so apparent to all, has been already presented to Dr. Cartwright, by his Boston opponents, to whom he has made no reply. Mrs. Willard recognizes the objection, but briefly passes over it by saying: "So different are the two conditions, (*in utero* and out of it) that we cannot argue from one to the other." Verily, there is always some way left to get out of a difficulty!

We will close this paper by noticing briefly the following items and positions assumed by Dr. Cartwright, in his last two papers in the Boston Medical and Surgical Journal:

1. He quotes from Cuvier the following passage, to prove that that author supported the doctrine, "that the chief motive power of the blood is in the respiratory organs." "The blood," says Cuvier, "derives its heat, and the fibre its susceptibility of nervous irritation, from respiration." Again, speaking of animals, he says: "Chacune de ses classes jouit de la faculté de se mouvoir précisément dans le degré qui correspond à la quantité de la respiration." *Leçons d'Anatomie Comparée*, vol. 1, p. 52.

How either of these quotations favor the new theory, is more than we can discover. Admitting that the blood derives its heat from respiration, it does not thence follow, that the chief motive power of the blood is in the lungs; nor do we believe that Cuvier ever thought of such a strange theory. Heat produces motion every where we admit; but this is a very different thing from admitting that the expansive force communicated, by heat, to the blood in the lungs, is sufficient to cause the arterial circulation. We could say much on this point, but the thing is too plain to need much argument. As to the second quotation, we are equally at a loss to discover how the simple fact, that the respiration of animals, being in some proportion to their locomotive powers, proves the new theory. Cuvier dwells extensively on this latter subject, in his *Anatomie Comp.*, and clearly points out the true relation between the respiration of animals and their *faculté de se mouvoir.* His views on this subject are the same as those entertained by the most eminent living physiologists of the day, and we will not therefore quote him on the subject.

We see nothing in Cuvier, either in his *Règne Animal* or in his *Leçons d'Anatomie Comparée*, which justifies the statement of Dr. Cartwright, that "Baron Cuvier, the highest authority in natural philosophy, brings the light of that science in support of the new doctrine, that the chief motive power of the blood is in the respiratory organs." We are astonished at this announcement, and can only account for it by supposing that Dr. Cartwright has only glanced carelessly over the works of Cuvier. That writer treats at large on the subject of the circulation of the blood, and distinctly announces the cause of it. We need give only one quotation. Speaking of the circulation and of the arteries, he says:

"C'est à cet endroit où les deux grands troncs communiquent qu'est placé le cœur, qui n'est autre chose qu'un organe dont les contractions poussent avec violence ce fluide dans tous les rameaux du tronc artériel. * * * C'est dans ce mouvement de rotation que consiste la circulation du sang, qui est, comme on le voit, une autre fonction d'un ordre secondaire propre aux animaux, *et dont le cœur est l'agent principal et le régulateur.*" *Cuvier, Anatomie Comp.* vol. 1, p. 13.

How completely this contradicts Mrs. Willard's theory, will be apparent to all. Mrs. Willard's theory, too, it will be recollected, supposes the heat of the lungs to be greater than that of any other part of the body, thus causing the blood to flow from them rapidly by expansion. This is a fundamental principle in her theory; for if the blood is of the same temperature in all parts of the body, the expansion would be equal in all parts, and in every direction, and consequently there

could be no circulation from expansion. The valves would not alter the case at all; for the expansion and pressure would be equal and the same on both sides of them. Hence the position of Mrs. Willard, now endorsed by Dr. Cartwright, that the heat of the lungs must be greater than that of the other parts of the body. This fundamental principle Cuvier plainly contradicts:

"L'effet immédiate de la respiration est donc de donner au sang sa qualité artérielle. * * * Cet effet s'exerce dans le poumon même, puisque le sang devient subitement artériel; mais le poumon n'est pas pour cela le lieu le plus chaud du corps, quoiqu'il soit la source de la chaleur animal, parceque le sang artériel a plus de capacité pour le calorique que le venieux." Cuvier, *Anat. Comp.* vol. 7, p. 11.

We might make pages of extracts from the *Leçons d'Anatomie Comparée*, to show that Cuvier does not "bring the light of science in support of the new doctrine, that the chief motive power of the blood is in the respiratory organs," but these will suffice.

2. Taking Dr. Cartwright's propositions in the order in which he presents them, the next is that regarding *lymphatic hearts*, which he says he has discovered in the alligator. We have conversed with Dr. Bennet Dowler on this subject. He has dissected great numbers of alligators, and says that he has never discovered lymphatic hearts in any of them, and that he does not believe in their existence. He thinks that Dr. Cartwright must have mistaken something else for them. In an alligator which was vivisected by Dr. Dowler on the 6th of May last, in the presence of Drs. S. A. Cartwright, Copes, Hale, and many others, Dr. Dowler and myself sought diligently for lymphatic hearts, after the others had retired, but found nothing that could even be mistaken for them. Dr. Cartwright introduces this discovery of his as having some bearing upon the new theory. We confess that we do not see what it is. If any thing, it militates against it; for the new theory argues that hearts are quite insufficient to circulate the blood. The respiration in the alligator is almost nothing,* and if we were quite satisfied of the existence of lymphatic hearts, we would regard them as greatly confirming the old theory, now generally received. Cuvier, we believe, says nothing about lymphatic hearts in any of the

3. "Comparative Anatomy," says Dr. Cartwright, "has revealed Reptilia, in his *Regne Animal.*

* Speaking of respiration in animals, Cuvier says: Plusieurs n'en ont besoin aussi continuellement; leur respiration a quelque chose d'arbitraire; ils peuvent la suspendre plus ou moins long-temps, etc.; ce sont les reptiles, etc. *Cuvier, Anatomie Comparée, tome* 8, p. 1.

the fact, that there are more than 12,000 species of red-blooded animals having no muscular apparatus or heart to propel the red blood, and about as many molusca having no heart to propel the venous blood, to say nothing of three millions of species of insects without any heart at all."

The advocates of the new theory are evidently interested in getting rid of as many hearts as possible, and, as is very natural, they deceive themselves. Let us first examine the statement, that "there are more than 12,000 species of red-blooded animals having no muscular apparatus or heart to propel the red blood." Dr. Cartwright alludes, we presume, to the fourth class of vertebrated animals—*Pisces*. We are disposed to question the correctness of the statement that fishes have no muscular apparatus or heart to propel the red blood. Let us take Cuvier's own account of the circulation of the blood in fishes: "The blood," says he, "is brought to the gills by the heart, which thus answers to the right ventricle of warm-blooded animals; and from the gills it is sent to an arterial trunk lying immediately upon the under side of the back-bone, *which trunk is the left or systemic ventricle of the heart, and sends the blood throughout the body of the fish.*" *Cuvier's Animal Kingdom*, p. 290, London edit., 1840.

Dr. Cartwright tells us that "Cuvier is the highest authority in natural philosophy;" we presume he meant to say natural history and comparative anatomy. Now it is evident, from the above quotation, that Cuvier, at least, did not regard fishes as destitute of any muscular apparatus for circulating the arterial blood. He declares that they have a "left or systemic ventricle of the heart"—the arterial trunk on the under side of the back-bone. The only difference between the heart of fishes and that of the mammalia is, that in the former the left ventricle is separated from the right. Cuvier furthermore states that this left ventricle "sends the blood throughout the body of the fish."

Let us now look at the Molusca, which, Dr. Cartwright tells us, have no heart to propel the venous blood. We will again quote Cuvier to show that the Molusca are better provided with hearts than almost any other order of animals. The poor oyster, so heartlessly devoured by man, is far from being heartless himself. "The circulation of the Molusca," says Cuvier, "is always double—that is to say, their pulmonary circulation always makes a separate and complete circuit; and this function is always aided by one fleshy ventricle at least, placed, not as in the fishes, between the veins of the body and the arteries of the lung, but, on the contrary, between the veins of the lung and the arteries of the body. It is, consequently, an aortic ventricle. The family of Ce-

phalopods alone is provided, besides, with a pulmonary ventricle, which is even divided into two. The aortic ventricle is also divided in some genera, of which the *Arca* and *Lingula* are examples; at other times as in the remaining bivalves, its auricle only is divided. When there is more than one ventricle, they are not united together to make a a single organ, as in animals with warm blood, but they are often placed considerably apart, so that we may say there are several hearts."

We see by this that the circulation in the Molusca is well provided for. There is at least one heart to circulate the arterial blood, and sometimes several. The circulation, then, in these animals, does not at all favor the theory of Mrs. Willard, for we have only the arterial circulation to account for. We do not maintain, under the old and generally received theory, that the contractions of the left ventricle circu late the venous blood.

Lastly, the "three millions of species of insects without any heart at all." Here, again, Dr. Cartwright is at fault. He follows too much the naturalists of the old French school. It was only a conjecture of Cuvier that insects are destitute of circulation. He did not say destitute of a heart, as Dr. Cartwright has it. He has but one line on the subject. He simply states that insects have "a dorsal vessel occupying the place of the vestige of a heart, but without any branch for circulation." Cuvier has been dead just twenty years, and great advances have been made, since his time, in every department of science. It is now known that insects have a decided circulation, as Cuvier's commentators acknowledge; and we are surprised that Dr. Cartwright does not know this. During the life of Baron Cuvier, and his brother, also a great naturalist, Frederic Cuvier, who died at Strasbourg in 1838, anatomists were much divided as to the character of the dorsal vessel—some regarding it as a distinct heart; and others, including Cuvier, as not. Recent observations have decided the question. "According to Herold, the dorsal vessel is the true heart of insects, being, as in the higher animals, the locomotive organ of the blood, which, instead of being contained in vessels, extends through the general cavity of the body. This heart occupies the entire length of the bulk of the abdomen, and terminates anteriorly in a single artery, which is not ramified, and which carries the blood to the head, whence it returns to the abdomen by the mere effect of its accumulation in the head, to reenter the heart; and it is in this that the entire blood of insects consists, and which are consequently destitute of veins."* According to

* Cuvier's Animal Kingdom, Lond. ed., p. 471.

M. Strauss, the abdominal portion of this organ is the heart, which is divided internally into eight chambers, in the Cockchafer, separated from each other by two convergent valves, which permit the blood to be propelled forwards, but prevent its returning. The still more recent observations of Bowerbank and of Charles Gustavus Carus, and some others, confirm the views of Herold, and place the existence of a decided circulation in insects beyond a doubt, although it is of a nature very unlike that of the higher animals.

Charles Gustavus Carus is a celebrated naturalist, who has received, since the death of Cuvier, the prize of the Academy of Sciences of Paris for his discovery of the circulation of the blood in insects.

4. Dr. Cartwright states that "that the Annelides and many other animals having a very active circulation, have no heart, either aortic or pulmonary." We are surprised to see such statements as these ; but one bent on upholding a theory, is apt to commit extravagances. We have only to quote his favorite author, Cuvier, in order to overthrow again his position. "In the Annelides," says he, "the blood is generally of a red color, and circulates in a double and close system of arteries and veins, which have sometimes *one or several* hearts or fleshy ventricles, tolerably well marked. Their blood circulates in a well-defined system." *Cuvier's Animal Kingdom,* pp. 388, 390.

In regard to the lymphatic hearts in alligators, we can only say, that we have examined not only the most eminent authorities, but we have also examined the animal himself, without being able to find them. We do not, though, say that the animals dissected by Dr. Cartwright in Concordia did not exhibit lymphatic hearts. But be this as it may, the existence of lymphatic hearts would be directly against the "new theory." It is stated by the compilers of the *Encyclopedie d'Histoire Naturelle*, and also, I think, by Lacepede and Lamarck, that some of the reptilia have enlargements in the principal lymphatics containing a valve, but they regard them as mere enlargements around the valves. Dr. Cartwright may have discovered some of these and dignified them with the name of hearts.

Dr. Cartwright does not, we think, do entire justice to the profession, and to the most eminent physiologists of the day, in ascribing to them the idea that the *venous* circulation is performed by the contractions of the left ventricle. There may be some who do, but they are few; but even that view of the case has more to support it than Mrs. Willard's theory.

That the heart is the chief agent of the circulation, in all animals, is now generally admitted by all naturalists and physiologists. The heart,

in some shape, (for there is no prescribed form) is *at all times* indispensable to the circulation and life of the animal; while the breathing apparatus is not so universally and indispensably necessary for life. Many of the Reptilia can live a long time without air, and their internal structure shows a complete conformity with this abstinence from respiration.

The great fact is, that the circulation of the blood *begins with a heart,** *and ends with a heart.* The circulation takes into its service the lungs, after birth, not as a locomotive agent, a pumping apparatus to aid the heart, but merely as a purifying and revivifying elaborator of the venous blood, so that the heart may constantly throw to the tissues a stream of liquid nourishment. That the lungs are secondary, is proved by the fact, that their functions can, for a considerable time, be dispensed with, by many animals, while that of the heart never can.

Cuvier, though a great naturalist, is full of errors. His statement that the whole class of Insecta have no circulation, is a great error. But, admitting this to be true, what becomes of "the new theory," which supposes the lungs were intended to be the chief motor of the blood? What is the office of the lungs, in the whole tribe of insects, who, according to Cuvier, have no blood to circulate?†

Dr. Cartwright seems to lay great stress upon the intimate relation between the respiration of animals and their locomotive powers; and thence endeavors to derive an argument to support his theory, that "the chief motive power of the blood is in the lungs." This curious relation is specially noticed by all physiologists; but Cuvier very justly remarks, besides, that there is not a less intimate relation existing between the respiration and the locomotive powers, than between the respiration and the digestive apparatus. Those animals who have great locomotive powers have an immense appetite, as well as great respiration. Why may we not, therefore, by parity of reasoning, locate "the chief motive powers of the blood" in the stomach?

We are free to admit that there is much yet to be learned regarding the circulation of the blood. We are not disposed to dogmatize, nor to be tenacious of our opinions. We cultivate science for its own sake.

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* In the fœtus, *in utero.*

† "Deux classes nombreuses d'animaux sont entièrement privées de circulation dans des vaisseaux clos, et se nourrissent à la manière des végétaux, par la simple imbibition d'un fluide qui baigne toutes leurs parties." *Cuvier, Anat. Comparée,* vol. 1, p. 14.

Discussion aids in the development of truth and sound philosophy. We trust, therefore, that Dr. Cartwright will continue his investigations on the motive powers of the blood, in his usual able manner. Physiology is, as yet, a very imperfect science, and those who think that they understand it all, perfectly, are probably in error.

IX.—CHOLERA AS IT APPEARED IN CALIFORNIA—BARQUE SPLENDID, &c.

Excerpta from my Note Book.

BY W. TAYLOR, M. D., OF ALABAMA.

About the middle of October, 1850, we descended from the high granitic crest of the Sierra Nevada to the low alluvial valley of the Sacramento. On quitting the mountain streams and reaching the valley, the traveller sees unroled before him a vast plain, receding until it vanishes in the far horizon.

Fresh from the salubrious influence of a mountain atmosphere, we found ourselves breathing one dense and sultry, and saturated with dust and impurity. At this season of the year all nature is dry, sere and parched, and presents more the appearance of an arid desert than a fertile valley. Neither hill nor cliff rises, to break the uniformity of the wide-extended plain; only here and there a lone tree, or occasionally a *bank*, rising sensibly higher than the adjoining parts. These *banks* abound in lime and fragments of sea-shells, and instinctively recal to the mind the more ancient condition of the globe, when these elevations were shoals, and the valley itself the bottom of a vast gulf, or Mediterranean sea. And even now, the illusive phenomenon of the mirage, which is common on these plains, almost deludes one into the belief, that he is surrounded by a sea, or on the surface of a great watery mirror. All objects appear to hover in the air; trees, cattle, horses and men, appear inverted in the atmosphere.

On reaching Sacramento City, we found that that dread scourge Cholera, had just made its appearance, in more than an ordinarily malignant form. The panic was great, and well it might have been. For never, perhaps, was a city in a better condition to propagate an epidemic in all its malignancy. The situation of the town is low, and subject to

annual inundations; the streets were filthy in the extreme, and the alleys and back yards filled with decaying vegetable and animal matter. Sutter Lake, situated within the suburbs of the city, contained a vast amount of stagnant water, dead and putrid fish, and all manner of filth, which produced an intolerable stench. The atmosphere was close and sultry, and void of electricity. Altogether, the city presented all the conditions that one would think requisite for the disease to flourish in all its horrors and mortality. And in addition to all this, as if to favor its mortality still more, the blood of a vast majority of its victims, from diet and habits of living, was, to a greater or less extent, in a scorbutic condition; and whenever this was the case, the disease was always sure to prove fatal.

For the first few days after the onset of the epidemic, every case proved mortal; there was no instance of recovery for three or four days. The first case of the epidemic that I saw in the city, was a patient of my esteemed friend, Dr. W. G. Proctor, who died in about six hours after the attack. I treated several other cases afterwards before leaving the city, but with very limited success.

In the meantime, I had engaged passage for Realejo, on the barque "Splendid," of Boston, Harding master, which was to sail on the 28th of October. The master offered me the Surgeon's place, which I accepted; but in doing so, little did I suspect the immense labor that I was assuming, or the melancholy sequel that was to follow.

The day set apart for the sailing of the Splendid arriving, I left the city and boarded her in the capacity of Surgeon and Physician. The vessel was to have been towed down to San Francisco by steam, but owing to disappointment in getting a towboat, according to contract of our Captain, it was not done. The disappointment was in consequence of the engineer of the towboat having died of Cholera, on the passage up the river, and the inability to get another in time to comply with the engagement. The result was that we had to float down by the current most of the way to Benicia.

The Captain was ill of a mild form of the epidemic when we went on board, but the entire crew and all the passengers seemed to be in good health, and but little complaint amongst them, considering the evident insalubrious state of the atmosphere, and the known prevalence of the disease in the city. Under these circumstances, late on the evening of the 28th, we weighed anchor and dropped down with the current, on our way to San Francisco; but we had scarcely gotten our anchor clear, when I was summoned in haste to the forecastle, to see the cook. On reaching him, I found him laboring under a severe attack of Cholera

—surface clammy and shrunk, great pallor, cramps, extremities cold, and almost pulseless. Wishing to avoid the ill effects of a panic, after giving him a heavy dose of anodyne and carminative medicine, I immediately went to the mate, and had him conveyed to the shore, and sent to the hospital, without letting the passengers know the nature of his malady. At the same time, I ordered the chloride of lime to be freely used in the hold of the vessel. After this, all went on well for about thirty-six hours, when I was called to see a man by the name of J., aged about 32 years, whom I found voiding every few minutes profuse rice colored discharges, features shrunk, surface cold and clammy,pulse quick and frequent, but almost imperceptible, and violent and excrutiating cramps. Yet in this condition was he trying to walk about, and it was with difficulty that I could induce him to take his bunk. Finally succeeding in getting him to bed, I gave him a portion of the following :

℞	Tinct. Opii,	℥ i
	" Capsici,	℥ i
	" Camph.	℥ i
	" Kino,	℥ i
	" Catechu,	℥ i
	Oil Carophyl,	ʒ i

Dose—A tea spoonful, repeated every fifteen or twenty minutes, until the discharges are arrested, or the pernicious influence of the narcotic became apparent. After this I administered full doses of Calomel. To relieve the spasms, I administered Chloroform, in drachm doses, repeated according to the urgency of the symptoms, with much benefit. So potent and effectual was this remedy, in combatting this symptom, that I never used it in a single case that its effect was not immediate and happy—always relieving the cramps, and giving temporary relief, at least, to the patient. After giving it to J. he revived, and seemed comparatively free from suffering for some hours, but eventually sank, and died after an illness of about twelve hours. But before this event occurred, there were a dozen other cases, and the panic with the passengers was complete ; all was confusion among them ; terror, dread and consternation were depicted in the countenance of the bold and firm, as well as the weak and timid. To such an extent were they frightened, that it was with the greatest difficulty that I could induce the well to nurse the sick, or give them any attention. To avoid a monotonous array of cases, I would merely observe, that my general practice throughout the entire course of the epidemic, was similar to that followed in the treatment of the case above alluded to, with what

success must be hereafter determined. Warm baths, in which I placed great reliance as a remedy in the treatment of the disease, from the impracticability of heating water in sufficient quantities on the vessel, could not be commanded. Consequently, frictions and counter irritants were the only substitutes. I had no medical assistant, and but an indifferent set of nurses; under these circumstances, my task was not an easy one, and my situation any thing but pleasant.

Our vessel was eight or nine days floating and lodging on sand bars, (*not sailing*) to San Francisco; and of her 130 passengers on board, not more than eight or ten escaped the disease, in some form or other; some experiencing it very slightly, while others had it more severely. Of the whole number attacked, seventeen died. I was forcibly struck with the great contrast of the disease, as it manifested itself on this occasion, and the character that it ordinarily presented in the Valley of the Mississippi. I could only account for such difference, by supposing it to be the result of climatic influences. We know that not only plants and animals, but disease itself, presents different aspects and characters in different lands and climates. In our own temperate region, the Palma Christi (Ricini Communis) and the Cayenne Pepper, (Capsicum Annuum) are annual plants; while in the tropics they become perennial shrubs. The effect of these influences on animal life is not less marked and decided; the same is true of disease. And in virtue of this truth, perhaps, was the Cholera essentially different, as it appeared in California, to what I had seen it in Louisiana twelve months previously. Indeed, so materially did it differ from the epidemic, as known east of the Cordilleras and Rocky Mountains, that many of the best Physicians were disposed to regard it as a different disease.

It may be proper to observe some of the characteristic differences in the disease, as it manifested itself in California, compared with that form of epidemic Cholera that I had seen and treated on the Ouachita. In the disease as it appeared in California, there was, in many instances, an entire absence of vomiting and cramps, and some few, indeed, did not experienee any pain. The discharges from the bowels were both frequent and copious, but in nearly all the cases the stools, instead of presenting the characteristic appearance of *rice water*, in color and consistence, were of a light crimson, brown, or brick-dust color—as in the *ordinary rice water discharges* had been charged with these different hues, by the thorough incorporation of greater or less quantities of blood, that had exuded from the entero-mucous surface. J. and four others were the only cases that occurred on the vessel, in which all the symptoms of the *genuine* Asiatic Cholera were present. For a

long time I was in doubt, and am not yet fully decided, whether to regard the disease as epidemic Asiatic Cholera, modified by the universal disposition in that country to inflammation of the intestines; or whether it was a *malignant epidemic form of inflammation and congestion of the bowels.* Certain however it was, that its malignancy was increased by an abnormal and insalubrius state of the atmosphere. The atmosphere at the time was thick and hazy, as if saturated with smoke and dust, and almost an entire absence of electricity. Even those that were well seemed dull and heavy, and indisposed to act; all were low-spirited and despondent. And, as if to add still more to the detriment and discomfiture of the panic-stricken and ill-fated passengers, the air was raw, chilly, damp and penetrating. The gloom on some occasions was sufficient to unnerve the most stout-hearted. I remember one morning, after having been below in the hold all night with the sick, trying to administer to their wants, I came on deck, and found our vessel fast aground on a sand bar. The sun was obscured by the clouds, and the winds blew bleak and damp, pregnant with disagreeable odors from the dismal sloughs and marshes on either side of the river—all nature seemed to frown; and then, as if to add horror to the scene, and make despair complete, the ear was pierced every moment with the screams and groans of the dead and dying.

In nearly all the cases, previous to the attack, (a few hours only, ordinarily) there was a partial suppression of urine, and in some few instances, I have reason to believe that I succeeded in arresting the disease, or at least mitigating it to a great extent, by the timely use of *diuretics.* One case I will give in illustration: C. C., a stout, robust, intelligent man, aged about 45 years, came to me with all the premonitory symptoms, and with them, a total suppression of urine. I immediately gave him a full dose of Spts. Nit. Dulc., and advised him to go to the medicine chest and take a dose of the mixture given on a preceding page, with the further instruction to retire to his berth and remain there quietly. Two hours afterwards I visited him again, and asked him how he was getting on. His answer was, "Well, Doctor; I did not take the other dose that you prescribed, but the Nitre has made me as straight as a pin, and I do not think it will be necessary to take any thing farther; my kidneys are acting finely, and I feel as if I would recover without farther trouble." However, I was not willing to risk it, and gave him a dose of Calomel and Dover's Powders; it acted well; his symptoms all disappeared, and there was no recurrence of them. I never lost a case of the disease when I could get free and consistent bilious discharges.

We reached San Francisco about the 7th of November. On reaching the city, we made arrangements with the authorities as soon as possible to remove some of our sickest passengers to the City Hospital. We sent eight patients to it, three of whom died within twenty-four hours after their admission. These three are included in the *seventeen*, the sum total of the mortality, from the epidemic on the vessel.

After reaching the Bay of San Francisco, and coming under the influence of the sea breeze, we had but few new cases of the epidemic. With the exception of myself and one or two others, there were none. Iwas taken quite violently with the disease the morning after we anchored in the port, but it yielded readily to medicine, and I was up again in a few days. What is remarkable in my case is, that I should have exposed myself to the disease so constantly, and mingled with it so much, and yet be about the last to take it. My labor during the whole trip down the river was incessant—waiting on the sick day and night for ten days in succession, during which time I did not sleep, in the aggregate, *eight hours.*

We remained in San Francisco until the 11th of November, when we weighed anchor, unfurled our sails and cleared port, and were soon, once more, on the bosom of the Pacific, on our way to Realejo. We had no more of the epidemic on board after we got out at sea, but had several cases of Typhoid Fever, of which two passengers died, and several others escaped very narrowly.

X.—CONTRIBUTIONS TO EXPERIMENTAL PHYSIOLOGY.

BY BENNET DOWLER, M. D.

Corresponding Member of the Academy of Natural Sciences of Philadelphia; Fellow of the Medico-Chirurgical College of the same city, &c., &c.

May 6th,—3 *P. M. to* 6 *P. M.*,—1852.

VIVISECTION NO. 1.

By the politeness of Dr. Cartwright, I was called upon, by letter, this evening, to make arrangements for the vivisection of an alligator, which he placed at my disposal. I accordingly called at his house to inform him that I would attend on the following day; but after reflecting upon the matter, I thought it advisable to proceed in the vivisection

without delay, although unprovided with suitable instruments.* In a few minutes after the operation began, several medical gentlemen arrived, though not all at the same time : Drs. Greig, Coit, Reynolds, Mr. Gordon, and at a later period Dr. Weatherly.

1. The alligator, over 3½ feet long, was vigorous, and disposed to fight and resist.

2. It was secured by bandaging its muzzle and tying its body to a plank, the back down.

3. The trachea was firmly tied in the middle of the neck with a piece of tape.

4. In a few minutes the animal appeared to be dying. The cords were untied, those of the mouth excepted. Death appeared complete in thirty minutes. In the meantime, the viscera of the chest and abdomen had been exposed. One of the hind legs was dissected—the skin and faciæ removed—the muscles separated, and the sciatic nerve and its branches, to the popliteal region and down to the ankle, was pinched, disorganized and cut, without any signs of pain—without voluntary motions, and without convulsive action, excepting the usual twitchings, chiefly in the toes [which I have so often described as taking place in the apparently dead animal, for a period, sometimes, from one to three days, and even in amputated limbs. These twitchings do not appear, in any case to amount to complete extensions or flexions].

All of a sudden the alligator came to life. This was about half an hour after tying the trachea, the ligature still remaining. The limbs had been relaxed—the body motionless for some minutes. But in the twinkling of an eye it turned upon its abdomen—jumped from the table to the pavement, and without attempting to run away, faced the company—took an attitude of defence—struck at every one that came

* Since writing the above, I have performed some, and reviewed other experiments made with what would be regarded, at first sight, as suitable instruments—instruments which are probably the worst, as sharp knives, keen chisels, etc. In the present instance, the use of a dull case-knife, probably prevented, in a good degree, profuse hæmorrhage, which is always unfavorable to striking results. Franklin, who knew the unaffected simplicity of Nature, approached her portals, and learned her profoundest secrets, by means of a kite, a key, a flask, and a few plain instruments, which would make but a sorry appearance amid the glitter and magnificence of a mordern laboratory. With his kite—an object of ridicule to the ignorant—he discovered how to disarm the thunder-bolts of heaven.

nigh, as if intending to bite; though fortunately for its enemies, its jaws were still firmly bandaged together. It watched the vivisectors narrowly, and turned courageously upon any one who advanced nearest to it.

6. All signs of death having thus suddenly disappeared, it was determined, after ten or fifteen minutes' delay, to recapture it, and re-bind it to the plank for further experiment, the trachea being still tied, as at first.

7. After many attempts with a dull case-knife, used as a chisel, aided by a hammer, the spine with its cord was divided in the middle of the neck—several of the cervical vertebræ were broken so that a thumb could be passed between the ends of the cord. By this method of operation, some of the great muscles of the neck were bruised and even completely disorganized, thereby preventing, in a great degree, motion in the head and neck. Much blood was lost, though this animal has comparatively but little.

8. The viscera were more fully dissected. The ligature was at length removed from the trachea. The latter having been opened, the lungs throughout the subsequent stages of the vivisection were repeatedly inflated by Dr. Cartwright's black boy. In detaching the lungs, or from some other cause, a rent had been produced, from which the air escaped,* though this occurred at an advanced stage of the dissection.

At intervals the dissection of the legs was continued, by which the skin and fasciæ were removed, the muscles separated, the nerves exposed, pinched, crushed, cut and removed.

9. By means of a rusty wood saw, the spine, with the cord, was divided a second time, midway between the fore and hind legs in the lower third of the dorsal region, so that the body could have been doubled in three pieces like a pocket-rule, connected only by the skin and muscles.

10. Most of the viscera were removed from the body. The remaining nerves of the limbs were exposed, experimented on, and cut away.

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* One of the medical gentlemen who was present informed me, that this rent was caused by the black boy, who inflated the lungs with undue violence. These organs, indescribably delicate and beautiful, consisting of small transparent bladders without parenchyma, are easily ruptured. When compressed so as to exclude the air, and dried upon glass, they form a fine microscopic object, but little thicker than paper in an animal from one to three feet long.

11. Finally, from the last division of the spine a punch was introduced into the canal, by which the cord was gradually but completely destroyed downwards to its caudal, and then upward to its cervical portions.

12. From the first to the last division of the cord—from the resuscitation to the close of the experiments, the threefold division of the body made by the two sections of the cord, displayed in all three of its parts, both sensation, volition, and accurately adapted muscular motion. The eyes winked or nictated. The head, towards the close of the experiments, attempted to bite Dr. Reynolds. The lumbar and caudal division gave the most unequivocal indications of pain, contrivance, and adaptative action. Thus the animal, on being suspended by the neck, so that the legs might hang down, was pricked with a scalpel in the groin, whereupon it raised one hind leg, (the other had been amputated) it carried the foot (the law of gravity opposing) instantly and accurately to the exact spot where the injury was inflicted, pushing strongly against the knife, slightly wounding its ankle in the attempt to remove the pain-giving instrument—a feat requiring extreme flexion—a complete doubling of the leg upon the thigh. Now this flexion, and several others performed near the close of the experiments by the remaining hind leg and by the fore legs, took place not only after two divisions of the cord, but after the removal of the individual nerves in the limbs themselves, and after the removal of the viscera and the principal portion of the sympathetic nerves, plexuses and ganglions. These motions indicated sensation and volition, as truly as those of the undivided normal animal. In the divided, eviscerated animal, with its limbs *deprived of its nerves*, clear indications of pain and combined motions took place, when, at the close of the experiments, the divided ends of the cord were touched. Thus, when the dorso-caudal part of the cord was irritated, the hind leg was strongly directed to that place. This it repeated until the entire cord was gradually destroyed by a punch reaching down to the tail. The same phenomena occurred when the punch pressed or disentegrated the cord, from the last, or dorsal division, upwards towards the head or cervical division.

13. In the dissection of the nerves of the limbs during and after the apparent death—after the first and second divisions of the cord, and after amputation, a certain peculiar kind of muscular twitching, particularly in the fingers and toes, took place from compressing or injuring the nerve-cords (as I have formerly described); slight compression produced many twitches—a strong disorganizing one, or a section gave one or two only, after which compression in the same place produced no

motion whatever. The motion could always be reproduced whenever a new portion of the nerve was selected, provided it was invariably upon the distal side of the disorganization or section. The proximal end, that is, the end connected with the cord, when thus treated, was not succeeded by any motion, while that of the distal portion rather augmented as the irritation approached the extreme distribution of the nerves upon the fingers and toes. When the nerves were uninjured in any way, these twitchings were no greater than after the section of the nerve or the amputation of the limb. These twitchings seem totally void of volition or adaptation, being equally independent of the cord and of the proximal end of the nerves.

It will be seen that in the preceding experiments numerals have been used, in conformity to the stages of the vivisection. These are prefixed to the paragraphs for the convenience of the witnesses, who may have arrived at different periods. It will be seen by the certificates, at the bottom of the page, that Drs. Coit, Reynolds and Greig saw all the material experiments, beginning with paragraph 7, and thence to the end. Dr. Weatherly does not mention particulars, as will be seen.* This report has not been changed or added to since it was read to, and examined by, these gentlemen, with the exception of two foot notes.

VIVISECTION NO. 2.

The following Programme was submitted to the gentlemen present before the vivisection was commenced. The answers to the interrogatories of this Programme, as given by this experiment, and by many former experiments incomparably more striking, varied, prolonged, and perfect, will be annexed in the categorical form of affirmative or negative, within brackets, unaccompanied by explanations, though prelusive of experimental details that follow. This animal lived, comparatively, a short time. The weather was hot. Judging from experiments made in the cool season, I suppose that it would have lived at least three or four times longer, had the vivisection been made in the

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* We fully agree with Dr. Dowler as to the correctness of the experiments which we witnessed, from paragraph No. 7.

J. J. COIT, M. D.
D. ELLIOTT REYNOLDS, M. D.
ALEXANDER GREIG, M. D.

I saw a portion of these experiments, and so far as I witnessed them they are correct.

J. R. WEATHERLY M. D.

winter. The rapid hæmorrhage, for which no ligatures could be used, was another most unfavorable circumstance. I had never before divided the spinal canal with a sharp chisel, having generally used hatchets, saws, or dull instruments, whereby hæmorrhage was in a great degree prevented. In decapitating with a dull hatchet, the great carotid is sometimes, though rarely so contused or compressed by a sort of torsion, that a ligature is not required. Furthermore—The animal had been prepared for vivisection for four days before it took place; during this long delay it was constantly and strongly bound with numerous cords, from the tip of the muzzle to the tip of the tail, including the limbs. I found, upon subsequent dissection, that portions of the muscular tissue had been injured by the cords. This constant pressure for four days, doubtlessly, impaired its muscular activity.

I subjoin a small portion of the measurements: From the tip of the muzzle to the central interspace of the orbits, 5 inches; to the occiput, 7; interscapular, $11\frac{1}{2}$; sacro-iliac, 25; caudal extremity, 56; circumference of the thigh, $7\frac{1}{2}$; of the body, 21.

Programme of the Vivisection.

1. Divide the cervical cord: Will each division continue to manifest sensation and voluntary motion? Will each division act in concert or simultaneously on irritating either at, near, and remote from the line of division. [Ans. Yes.]

2. Divide the lower dorso-lumbar cord: Will all three parts afterwards manifest sensation and voluntary motion? Will two or three act simultaneously for a common end, where the middle or extremities are injured? [Ans. Yes.]

3. Dissect the brachial plexus of nerves from a fore-leg: Will voluntary motion and sensation still continue to manifest themselves on irritating the axilla, and the dorsal and cervical ends of the cord? Will the bare dissected muscles, if pinched or pricked, contract? [Ans. Yes.]

4. Destroy the principal trunks of the sympathetic: Will this dissection excite or destroy sensation and voluntary motion? [Ans. Dissection excites these, but the destruction of the ganglions and plexuses of the sympathetic does not appear to hasten their extinction. See Dr. Dalton's very interesting experiments accompanying this paper. Dr. Dalton must have cut away the chief part of the splanchnic nerve, together with the solar, cœlic, hepatic, gastric coronary, splenic, mesenteric,

renal, spermatic, aortic, and cardiac plexuses, as well as numerous ganglions.]

5. Dissect the spinal roots of that part of the cord which gives off the nerves to the hind legs: Will irritation of the posterior or the supposed sensory root not be wholly devoid of muscular action? [Ans. No.] Will irritation of the anterior or so called motor root, afford sensational or other phenomena like those of the posterior root? [Ans. Yes.]

6. After destroying the spinal roots, remove the corresponding portion of the cord: What effect will pricking and pinching at the groin produce? [Ans. Voluntary motion, if I remember rightly; but in former cases, this most certainly took place.]

7. Dissect, pinch, tie, cut, and disorganize the ischiatic or sciatic plexus, and trace the sciatic, the popliteal, anterior tibial and peroneal nerves. Prick and compress the isolated muscles: Will they not twitch equally with and without the nerves?—with and without connection with the cord? [Ans. Yes.]

8. Amputate a limb: Dissect away its nerves, prick and compress its muscles, will not the contractions be equally active as before? [Ans. Yes.]

For the following notes, written at the moment the events which they record took place, I am indebted to my learned friend, Albert Welles Ely, A. M., M. D. The portions which I have added are included within brackets.

Vivisection of Alligator at Dr B. Dowler's, on 13th May, 1852, at 9¼ A. M.

Present: Drs. S. A. Cartwright, Hale, McKinley of Tigerville, B. Dowler, Nutt, Ely, Copes, Bennedict, Coit, Reynolds and Weatherly.

Temperature of room, 79° F.; of the animal 75°. He is just from under the hydrant. [The hydrant water being 70°, the animal's heat has not yet reached that of the air, which it would soon reach, as former experiments prove.]

At 9 h. 20 min. A longitudinal incision just before the shoulders, about 3 inches long in the back of the neck [the muscles and skin thus divided were held asunder]; a half inch chisel was introduced, by which the cervical canal and cord were divided [at the 5th vertebræ]. The hæmorrhage was most profuse. All the gentlemen present having inserted their fingers into the wound, were satisfied that the spinal canal was divided; a piece of sponge was inserted between the vertebræ. [The copiousness of the hæmorrhage seemed to indicate a division of the great carotid, (which is single, and which lies close to the anterior surface of the vertebræ) but the subsequent dissection, which

was continued seven days, showed that no artery but the vertebrals had been cut.] This first division of the spine produced no change in the pupil of the eye [the iris being responsive to the light]. Eyes entirely natural, as before the operation. No change in the sensation of the parts below or above the division. The application of the point of a knife produced rapid motions in the head and all parts of the body, just as before the operation.

Division of the spinal cord in the dorsal region at 10 o'clock and 25 min., by means of a chisel. [The spinal canal was divided through the 14th dorsal vertebra, that is, at a distance of 7 vertebræ from the first lumbar.] Still the animal moved all parts of the body, even the head, eyes, and tongue. It tried repeatedly to bring the fore paw to the point where the chisel was inserted. Motion in all parts of the body was simultaneous. On inserting a probe into the canal, the animal moved all parts of his body as before. These motions were the same when the probe was inserted into the upper or lower portion of the divided spine. The application of heat caused motions in all parts, the animal always endeavoring to place his fore paws on the part heated. The pupils of the eyes began to dilate after making the second division of the spine. The animal closed his eyes at 10, 7 min., A. M.

At 5 minutes before 10, a long incision was made in the region of the spine, immediately between the hind legs, during which the fore legs continued to move, directed to the incision making. The pupil, during the dissection of the muscles, in this last operation, became enormously dilated. The narrow vertical slit or line of half an inch in length, naturally constituting the pupil in its contracted state, became a perfect circle. Some of the motions of the hind legs and tail were convulsive, while those of the fore legs and head were voluntary. At a quarter past 10 the head appeared to be perfectly dead, but the fore legs moved occasionally, [in a voluntary manner] as the dissection proceeded. On pinching the skin and muscles of the head, no motion followed; but on pinching or touching the shoulders immediately below the division of the cervical cord, the head moved to the side touched, and the fore legs both moved also. On making the touch on the opposite shoulder, the head invariably moved in the other direction, that is, towards the side touched or irritated.

The dissection was continued down so as to expose the spinal cord, and the posterior roots covered by the theca, which, in the alligator, is black. On touching the posterior root, motions took place in the hind legs on both sides, and in the fore legs. Also the tail moved with force from side to side, as when the animal was operated on. The motion

of the tail was evidently voluntary. [On touching the cord as well as posterior roots, both limbs usually twitched; this twitching occurred, too, in the right, as well as in the left leg, when the posterior roots of the left side were irritated. The opening of the cord, always difficult, often destructive to the posterior roots, and even to the texture of the cord, was in this case, after some delay, happily accomplished. Hey's saw, chisels and knives were used on both sides of the spinous processes, by which a narrow, vertical, but deep stratum or section of the muscles at their origin, was taken out from each side of these processes, and then, along with the spinous processes, a narrow longitudinal strip of the vertebræ themselves was removed, thereby exposing the cord, as covered by the dark, yet semi-transparent theca. This slit in the bony canal was, of necessity, too narrow for the perfect exposure of the anterior roots, but was, for this very reason, (as I had learned from experience, not from writers) all the better for the satisfactory experiments upon the posterior roots. The difficulties and disorganizing effects of this operation have not been properly estimated. To say nothing of the section of the muscles (the true motory organs) the posterior roots must suffer injury, and even sometimes complete disorganization, if a portion of the canal of considerable width be removed; for then the sawing and chiseling of the bones must take place at the very points where the posterior roots emerge! The narrower the portion of bone cut out, the greater the safety to these roots, and the less the chance of making experiments upon the anterior, particularly in small animals, the usual kind selected, as frogs, rabbits, kittens, etc. That a wide strip of the spinal canal can be cut out of small animals, so as to afford in the same case and at the same time a good view and a free manifestation of the cord and its nerves at their emergence, without injury to the posterior roots, may well be doubted! Here, I venture to think, lies much of the history, and not a little of the mystery, too, of the supposed absence of motory excitation by means of the posterior roots. The injury of these roots, the section of many muscles, and the like, are lost sight of, for a theory.*

In the present experiment, the two objects sought were achieved, or

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[* I beg leave to suggest the following rule for operating on the spinal roots, namely—let two animals be always sacrificed for the double experiment. In the one, intended for the demonstration of the posterior roots, let the opening be narrow; in the other, wider. With even this precaution, the posterior roots will often be injured by concussion, etc., etc. I would like to see the operator who can cut the anterior roots without injuring the posterior.]

rather verified, namely—that of showing, uninjured, the posterior roots, and proving that they are motor, as fully as any other part of the nervous system. The twitchings of the limbs were as distinct when these roots alone were touched, or compressed, as when the cord was touched, and the anterior roots torn. After destroying and scraping away the cord, the twitchings were as great as ever; as when an instrument was scraped along the sides of the canal, so as to impinge against the remnants of both sets of roots, where they emerge from the canal; while on descending, peripherally, from the canal, after the destruction of the cord, the twitchings became more distinct with every removal from the centre. Still more: after destroying every visible nerve, the muscles on being compressed gave twitchings, precisely similar to those which had been excited through the nerves.]

At 25 minutes to 11, the sciatic nerve was exposed, the animal moving the hind legs as the knife divided the muscles. At the same time the two musk glands were dissected from the lower jaw, during which the fore legs moved voluntarily. Next the chest and abdomen were laid open, during which all parts, except the head, moved voluntarily, particularly the fore legs, which continued a pawing motion. The heart was slowly dilating and contracting. At 10 M., to 11, the lungs were artificially inflated, when the heart assumed a more powerful action, and the animal exhibited signs of coming to life. The throat dilated, the animal attempting to breathe of his own accord, and the head and legs moved. The sciatic nerve being tied, on pinching it gently *below* the ligature, the limb contracted as often as the experiment was made.

[In this, as in all other experiments, irritation or the pinching of a nerve in any part of its course, produced no effect upon the proximal or inner part of the nerve, nor on the muscles, whether the connection with the cord were preserved or severed, affording an invariable physiological law precisely opposite to that laid down in the most recent works on physiology: Messrs. Kirke and Paget, say for example, "that when the distal portion of the divided nerve is irritated, *no* effect appears." (Phys. 289.) "No muscular action follows irritation of the posterior roots." (Morton's Anat. 508.) In this, but far more in many other experiments, it is proved that sundry divisions of the cord and of the plexuses and ganglions of the sympathetic, do not prevent sensation and voluntary motion, all parts of the body acting in concert for a common end, simultaneously, intelligencially. Here, again, the newest and best works repeat, that "the cerebellum is the regulator of the locomotive

actions ;" (Todd on the Brain, &c.) a proposition quite incompatible with the phenomena already enumerated.]

Search being made for "lymphatic hearts," none were found. (Here Dr. Ely's notes end.)

A few minutes after noon, the gentlemen having gone up stairs to take some refreshments, I continued the experiments. I repeatedly inflated the lungs, for perhaps half an hour, without any marked effect. The death of all the tissues appeared to be going on with progressive but unusual rapidity. The action of the heart declined perceptibly. I ascertained that the swelling of the larynx, noticed in Dr. Ely's notes, was not owing to an effort of the animal to breathe, but was caused by a regurgitation of the air that had been forced through the artificial opening in the trachea, made for the inflating process, and which did not readily escape through the small glottidian slit of the larynx.

At 1, P. M., Dr. Ely rejoined me, at which time the twitching of the limbs, from irritation of the nerves and muscles, continued unimpaired. At half past 1, P. M., the experiments having ceased, the animal was placed under the hydrant, and irrigated for half an hour, and then it was immersed in a saturated solution of salt, for anatomical examination.

I regret that a want of space prevents me from inserting, *in extenso*, a recent communication, kindly sent me from the elegant pen of Dr. Dalton. The following extract will be read with interest: "Lieutenant, now Capt. John C. Casey, U. S. A., and myself were walking (I think it was in 1830) near the shore of Lake Pontchartrain, some half a mile westward of the Fort, when we saw an alligator, four or five feet long. We captured him, and then I proceeded to open and *eviscerate the entire contents of the thoracic and abdominal cavities* His heart, which we took to our quarters, continued its double action of systole and diastole for hours. From 24 to 26 hours after, I found the alligator alive, and when I approached him and touched him with a stick, he made a vigorous fight at me."

Having given a faithful detail of the two most recent experiments that I have made, may I not be indulged with a few remarks, more or less elucidatory of the general doctrines which they suggest?

It is admitted that alligators, from their anatomical conformation and psychical endowments, are better adapted for physiological experiment than any animal of the cold-blooded class—a class most relied on for these purposes, because their tenacity of life admits of a prolonged examination—a thorough analysis and separation of organs, and conse-

quently a satisfactory appreciation of functions. All that can be objected against these experiments, then, as illustrations of comparative physiology, applies *a fortiori*, to animals that are *less* analogous to man.* That a double section of the spinal cord, cervical and dorsal; that the removal of the nerve trunks of the limbs, and the destruction of the sympathetic nerve, would not remove all traces of sensation and voluntary motion in man, I am not prepared to deny. Nor am I fully prepared to take the affirmative, with all the assurance that precise experiment and careful observation could possibly supply. I have, indeed, observed in some warm-blooded animals, that the trunk, after decapitation, manifests for a short time both of these fundamental functions, while, I have observed for hours, in human subjects after apparent death, so many physiological phenomena, which I once thought impossible, that I am prepared to believe a good deal more. * * *

In man, paralysis of sensation and motion often rapidly follow certain lesions of the nervous system, while at the same time these same functions may survive, in other cases of injuries of a very extensive and destructive kind; moreover, in a very great number of instances, these functions are lost, without leaving any trace of disorganization discoverable by the morbid anatomist.

The prevalent theory of the nervous system is not only erroneous in itself, physiologically and pathologically considered, but it is, it may reasonably be supposed, mischievous in practice. Muscular diseases are called and treated as nervous, and although in many cases the treatment is right, the supposed cure of the nerves is probably referable to the muscular system, in which the morbid actions often are as evident as any facts can be, as in cramps, tetanus, hiccup, subsultus, chorea, convulsions, hydrophobia, hysteria, epilepsy, abortion, tenesmus, paralysis, stricture, rigidity, spasmodic contractions, strabismus, wry-neck, &c. How all these, and many other kindred diseases, which present

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* The psychical and personal history of alligator No. 2, familiarly called Zip Coon, for two years, I may on a future occasion publish, showing his habits, passions, seeming power of fascination, and most of all, his apparent foresight of, and new contrivances against, the two extraordinary cold spells of the last winter. Happier than the *Crocodilæ* of the sacred Ganges, the classic Nile, or the turbid Mississippi, instead of dragging a useless life for centuries in the swamps, he died in the cause of physiology.

> Happy! to whom this glorious death arrives,
> More to be valued than a thousand lives!
> On such a theatre as this to die,
> For such a cause. Waller.

material phenomena or symptoms in the muscular organs, can be seen in the nervous centres, or in the periphery, especially in those multitudinous cases where no changes can be detected, either symptomatically or anatomically, before or after death, would seem a more extravagant pretension than that of *clairvoyance* itself, as the latter only affects to see what is. The neurologists of our day, not satisfied with the Cullenian nosology, which assigns to the class of Neuroses, or nervous diseases, a formidable host of species ("quel nombre prodigieux d'enemis !"), but they would add even our epidemics, as yellow fever, to the catalogue !

HAMLET. Nothing is
But what is not.

It is not intended, however, to dwell, in this place, upon the pathological method of illustrating physiology.

Revenons à nos Crocodiles. As to the above mentioned vivisections, especially No. 1, it may be safely affirmed that so far as the natural language of brutes can be accredited as defining consciousness, feeling, volition, purpose, and self-determining motions, nothing is dubious—nothing unsatisfactory—nothing to be desiderated. Explanation may exhaust itself—expositors may dread and reject unwelcome consequences. The central sensorialist may rail at all parts of the system except the nervous, as being unfit for the soul's seat—as unfit for knowing, willing, feeling and acting. He can believe most steadfastly in an unknown, unfelt spot in brain, which he calls the sensorium, to which all the residue of the system, even the nervous, is but a mere passive conductor; he finds no difficulty in believing in a nervous circle, in *four* distinct, yet wholly hypothetical sets of nerves, a double set, the sensori-volitional, and yet another double set, the excito-motor ! But on the other hand, how obstinately can he disbelieve that the mind, or psychical entity, can, by any possibility, occupy the muscles, or take even a temporary refuge in them, after the destruction of the nerves, although the former surpass the latter in delicacy and exquisiteness of organization, in adaptational contrivance, and in well developed finality, almost as much as a race horse surpasses an oyster in the locomotive apparatus !

It may be further remarked, that the analogies of Nature—developmental, progressive, comparative, physiological and anatomical, so far from teaching that the nervous skeleton is the sole starting point, the fundamental type of life and voluntary motion, teach just the contrary. Nature travels far, surmounts innumerable physiological obstacles,

mounts high in the scale of organization, and achieves motiferous and sensiferous systems, before she admits a nervous system at all. In plants, and in certain animals wholly destitute of nerves, both motion and sensibility exist in various degrees.

Plants sleep, wake, move, contract, and possess a kind of sensibility, without having a nervous system. Irritation, pinching, pricking, a drop of acid, an unaccustomed heat, or the slightest touch, will suffice to cause some plants to move. In a word, says Dutrochet, they will comport themselves as animals would in like case: "En un mot, la feuille se comporte comme le ferait, en pareil cas, un animal qui serait averti par ses sensations de l'actuelle d'une cause excitante sur ses organes." (*Mém. sur les Végétaux.* Tom. 1. 538. Art. xi. De l'excitabilité végétale et des mouvemens dont elle est la source.) The *mimosa pudica*, (Lin.) or sensitive plant, affords an example of vegetable, analogous to animal contractility, being wholly independent of nerves. A violent impression produces greater contraction of the plant, and a more rapid exhaustion of its contractile force than a slight one. During the repose of the plant, this force is renewed. Some plants are easily poisoned. Here identity, rather than mere analogy, is obvious.

A greater error in physiology never prevailed than that now almost universally recognized as a fundamental truth, namely, that the whole of man, his entire *Ens* is but a bundle of conducting nerves, or rather a minute unknown sensorial spot or centre. If teleology, or the doctrine of final causes, as explained by exquisite organization, by unmistakable adaptation, by the harmonious union of means and ends, and by physiological anatomy, be regarded, then the muscular may, in at least several respects, claim precedence over the nervous system. The latter is not, as it has been seen, even the essential condition of life, much less is it life itself, its entire ontology. Nor is it proved to be the whole of man; nor his sole psychical entity and instrument. In the human subject recently dead, the nerves exercise no influence for or against muscular contraction. The latter being both active and independent.

The motions above described, be it remembered, had not a single characteristic strictly "automatic," the pertinacious and pernicious assertions of celebrated book-makers (and certain automatic critics, who always think with the celebrated) to the contrary notwithstanding. Even though an author were a *Nardac* of the Empire, (the highest and most celebrated of all titles known in Lilliput) this would not give validity to opinions in physiology, while direct experiments prove these

opinions to be erroneous. The Academician who proposed to build houses from above downwards, would be a fit companion for those theorists who thrust in the words "automatic," "reflex," "instinctive," and so on, as a good explanation of the phenomena which I have so often described as occurring in animals after decapitation—after sections of the cord—after the removal of the nervous trunks—after the destruction of the sympathetic system—after the removal of the viscera. Not only so; the word "automatic" is as much applicable to the composition of the Iliad, or the movements of a dancer, as it can be to those functional contractions, flexions, and extensions, which I have observed in an almost countless number of experiments, made directly upon *human subjects*, soon after the infallible signs of ordinary, not physiological death, had taken place. These, more numerous, curious and instructive, than any I have observed in vivisection properly so called, are the very reverse of "automatic" or mechanical motion, and clearly overthrow the received theories of the nervous system—of the reflex action of the cord, and of the spinal roots.* Although I have published many of these experiments, and many of the purely physiological laws thence derived, the tenth part has not yet been told. The muscular system (not to name the co-ordinate functions, as the capillary, calorific, &c.) presents, in these experiments, many curious laws, in relation to the increment, decrement, temporary decline, regeneration, persistence, injuries, and general conduct of its forces, which, though very variable, admit, nevertheless, of scientific classification into groups.

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* Bell describes the motions produced by irritating the posterior or so called motory roots, as barely visible to the natural eye. Magendie says they are but slightly marked—"Ces contractions sont cependent peu marquées," being, as he says, infinitely weaker than those resulting from the touching of the cord itself. Neither of these experimenters appear to have known, that after the destruction of these roots, the motions augmented towards the periphery, from irritating the trunk of the nerve, and even from irritating the muscles after the removal of the nerves. Of course, these facts are completely subversive of the theories which these gentlemen have deduced from their experiments upon the spinal roots, not to name the reflex theory, more recently revived and advocated by others.

XI.—PRACTICABILITY OF PROBING THE FALLOPIAN TUBES, IN CERTAIN MORBID CONDITIONS OF THOSE ORGANS.

BY SAMUEL A. CARTWRIGHT, M. D, OF NEW ORLEANS.

In Vol. 7, No. 6, page 804 of the New Orleans Medical and Surgical Journal, May, 1851, I published a case wherein I succeeded in catherizing the left Fallopian tube of a large Ovarian Tumor. The patient had come from a long distance to this city, and was resolutely determined to have the tumor cut out. She was in constant torment from its pressure on the bladder. Her general health was feeble, being pale and emaciated, and afflicted with bronchitis. The tumor was irregular and knotty, yet seemed to contain a fluid. She said she had perceived it from her earliest recollections, but it had not incommoded her much until the two years since her marriage, during which time iodine, mercury, and a variety of remedies had been tried, without effect. As mentioned in the report of the case, Dr. Stone, on the 10th of March, 1850, was consulted, and decided against an operation. About a week afterwards, finding that no remedies would afford even temporary relief, I determined to try the practicability of a new process—that of reaching the fluid in the tumor through the Uterus and Fallopian tube of the side affected. I succeeded beyond my most sanguine expectations in bringing away the greater portion of its contents; giving immediate relief without inflicting pain.

In the March number of the Charleston Medical Journal, (South Carolina) a writer assuming the name of "*D. Warren Brickell, M. D., Natchez, Miss.*," has seen proper to call in question the facts reported in regard to the case above mentioned. I have made enquiry, and find that there is no Physician or other person by that name in Natchez, or that ever dwelt in that city or its suburbs. The writer in the Charleston Journal, by heading his article "*Natchez, Miss.*," would lead the profession at a distance into the error of supposing that he is a resident Physician of that place, and that my reputation for veracity is so low, that a member of the faculty there can publicly assail it without injuring his own. The question where the said writer resides, whether in Charleston, New Orleans, or in some nook and corner in the country, is of no importance to the profession, but simply whether he has any grounds for calling in question the facts stated in my report of the ovarian dropsy case? He casts some doubt on the existence of such a case at all. He is quite sure that if there was such a case, there was an error in the diagnosis; that it was a uterine tumor and not ovarian. He says this is the opinion of another practitioner, and he thinks it is the opinion of nine out of ten; and he winds up his article by thinking, that they "will soon begin to think that this operation [catheterism of the Fallopian tubes] is really performed *only on paper*." I stated expressly in my report that the tumor was ovarian, and that "the uterus was rather under the usual size." The small size of the uterus is accounted for by another fact, stated in my report, that a prolongation of the tumor had slipped down between the bladder and uterus, compressing the latter organ. The tumor could not be

uterine, and my statement of the small size of the uterus be true. Whether my report in regard to the diagnosis of the case be true or not, will appear from the following certificate of Dr. Warren Stone, Professor of Surgery in the University of Louisiana.

NEW ORLEANS, May 16th, 1852.

This is to certify that I was called by Dr. Cartwright on the 10th of March, 1850, to the * * * House, to consult in the case of Mrs. * * * who was laboring under an ovarian tumor, which I thought contained some fluid and some irregular solid growths. Her general health was bad, and I thought there were adhesions. I saw the same lady a few days since, and found her general appearance that of fine health.

W. STONE, M. D.

This certificate settles the question of the existence of such a case, and whether it was an ovarian tumor or not. Additional evidence could add nothing to its force. Stone, in New Orleans, is what Liston is in London, and what Physick was in Philadelphia. His testimony proves clearly that the writer in the Charleston Medical Journal has committed an offence not only against me as an individual, but more also against the medical profession and humanity itself. Me, I have no fears of his injuring, where I am known, by the exercise of that lowest and most puerile kind of criticism, consisting in mere contradiction and denial of facts. But the denial of the facts, in this case, professing to come from Natchez, where I so long resided, is an offence against the medical faculty every where, as it is calculated to rob the profession of what little benefit might be derived from the report of a case of a new and easy mode of relieving an intractable and fatal complaint. It is also an offence against humanity, as tending to exclude the glimmer of light and hope, which this case would bring to those who are similarly affected and are given over to suffering and to death.

I would not, however, be understood as wishing to make more out of Dr. Stone's evidence than what is strictly due to it. I quote his evidence only to prove, that such a case existed—that my diagnosis was correct—that the tumor was ovarian—that the patient's health was bad, when he first saw her upwards of two years ago, and her appearance of fine health when he saw her a few days ago. He was not present when the operation of probing the Fallopian tube, to reach the tumor, was performed, and knew nothing about it. Nor does any one through me, but her immediate friends. I would throw my reputation to the dogs sooner than betray the confidence that the most humble woman in the land has reposed in me as a Physician, and would suffer any tortures sooner than drag before the public female witnesses in matters of this delicate nature. But in regard to the practicability of catheterizing the Fallopian tubes, in certain pathological conditions of those organs, denied by the pretended Natchez Doctor, I want no other evidence than that which is always at the elbow of every well read Physician—Anatomy, Physiology and Pathology. These are my witnesses, and with these I meet my accuser before the tribunal he has arraigned me—the honorable Medical Profession. Strong as Dr. Stone's evidence has been against him on one part of the issue, these will

be stronger still on the other. They will prove that the critic in this case is about as little conversant with those sciences, as a certain anonymous critic of one of my papers on Cholera was of Materia Medica, who wrote a caustic philippic against what he mistook for an original mixture of mine, *mercury with chalk*, without seeming to be aware that the *Hydrargyrum cum Creta* was an officinal preparation of the Dispensatory, and that I was not responsible for the *chalk*.*

It was stated in my report of the ovarian dropsy case, that I doubted the practicability of probing the Fallopian tubes in a healthy condition of those organs, and suggested the possibility that it might be done during the catamenial period. The writer, hailing from Natchez, calls in question the fact of my having probed the Fallopian tubes, because he was unable to perform the operation on the dead subject, and therefore would condemn me for having made a false report. In doing so, he loses sight altogether of the important changes which disease is known to produce upon the human frame and its organs. I call upon Pathological Anatomy to bear witness, whether or not disease works upon those organs, called Fallopian tubes, sufficient changes to unable them to admit a probe? It says, that there was a case, [very much like the one I reported] recorded by Blancardi, of a patient who had suffered many years with an ovarian tumor, and finally died. On dissection, one of the Fallopian tubes was found to be enormously distended with serosity, and behind it was a cyst, filled with 10 lbs. of fluid. (See Dict. Science. Med. vol. 56, page 60.) The question is, would that Fallopian tube, so enormously distended, have admitted a probe? The Speculum was not in use then, or the uterus could have been reached, the cervix forced, the distended tube probed, the 10 lbs. cyst ruptured, and the woman's life saved, as in the case I reported. Although our critic must be aware of the existence of such an instrument as the Speculum, yet he brings forward as a grave "obstacle" to the operation, "*the distance from the valva to the cavity of the uterus, and the length of the neck of this organ.*" He thus counts the length of the neck twice, not seeming to be aware of the difference that anatomists make between the cavity of the neck and that of the

* While the review of my Cholera essay was going through the press, I was writing some additional remarks on that complaint, then prevailing in New Orleans, 1849. I addressed a note to Dr. Hester, the editor, that if he and the author of the Review had no objection, I would be glad to have a proof copy before the publication, as I wanted to receive as well as to communicate information. He sent me a proof accordingly, and I have now in my possession a note from him, stating that he had obtained the author's permission to do so. Nevertheless, this same anonymous writer, *after this*, wrote and published another article, accusing me of having purloined or got into the possession of said Review before its publication, by some disreputable, strange or unfair means. This is the first notice I have taken of it, as I had the vanity to believe that nothing he could say or do could affect me where I am known. Nor have I noticed, until now, the attacks on me of the same anonymous writer, in several numbers of the Charleston Medical Journal, believing that I have friends in that city, who will, in the end, see that justice is done me.

uterus itself. All the great Accoucheurs, from Baudeloque backwards in the last century and forwards in this, give instances of extra uterine pregnancy, where the Fallopian tube has contained a fœtus of nearly full size. Morgani, Baillie, Good, Lisfranc, Tweedie, Watson, and almost every writer of note on dropsical affections, treats of dropsy of the Fallopian tubes, and gives instances of their enormous distention. The great Haller mentions a case, in which the fluid measured 140 pints. According to Lisfranc's experience, dropsy of the tube is more common than that of the ovary unconnected with a hygromic state of the tube. Watson defines ovarian dropsy to consist "in the collection of a fluid in one or more cells within the ovary, or in a serous cyst connected with the uterine appendages." (The tubes, of course.) "Under all circumstances," says Watson, Lecture 47, "the malady is a serious one, for its grievances are many, and its issue precarious and unpromising." After trying every variety of medical treatment, the same author says, "I must honestly confess to you that I am unable to reckon one single instance of success." In regard to excision he says, "the results of experience have been so discouraging, as well nigh, in most minds, to prohibit such attempts in future." Other methods, as that by puncture and injections, have not been attended with much better success. The case reported by me, is the first on record of the tumor having been reached per vias naturales.

The Fallopian tubes have been discovered, by recent observations, made by Reid, Sharpey, Webber and others, to be engorged and distended with blood in women who have died during the menstrual period. "Congestion," says Churchill, "in the uterus and ovary, with certain changes in the Graafian vesicles, occur at the menstrual period analogous, to a certain extent, to those which take place after conception." The interior of the tube, in a healthy state, contains a fluid-like mucus. The proper tissue of the tube has been likened, by anatomists from Haller down, to the spongy or erectile tissue. Its inner surface is lined with mucous membrane in folds, the plica running longitudinally. The celebrated Roux was the first to make the observation, that the Fallopian canal is the only instance in the animal economy of an open way to the cavity of the serous membranes from without; and he supposed that occasionally fluids, extravasated in the abdomen, found their way out through this open channel. I am the first to turn that idea to practical account, by breaking down the dissepiments in those tubes, when morbidly distended, to reach a fluid contained within the upper portion of the tube and the cavity of the peritoneum. Several Physicians, in London and elsewhere, have asserted that they have probed the Fallopian tubes. But their object was to remove obstructions to the ingress of the spermatozoa. Whereas I claim to be the first who has probed them for the purpose of drawing off a dropsical fluid, and succeeded in the attempt. If the cases were ever so limited, in which such an operation would be practicable, the report of a successful operation would be of too much importance for spite and envy to be permitted, without rebuke, to discredit through the pages of the Charleston Medical Journal—a Journal, which seems to be the organ of those, who would write me down, as it contains

lengthy and caustic reviews of some of my Essays, without publishing the Essays themselves, except only one short paper I intended for students of Comparative Anatomy, yet headed with the same title as the principal Essay itself, under review in two numbers of the Journal, as if it were the matter reviewed, and I had been heard, when I have not been.

After the ovarian dropsy patient had gone to parts unknown in a distant land, and I could give no account of her, this next and last attack was made upon me in the same Medical Journal. But the unexpected re-appearance of the patient in New Orleans, in the hour of the supposed triumph, to stand before Dr. Stone, and to be pronounced by him to be the same individual who had been affected with the ovarian tumor, and in bad health, in March, 1850, and now, in May, 1852, " has the appearance of fine health," is a severe rebuke to those, if such there be, who prompted the attack on me professing to come from Natchez, my old place of residence. There is no resident Physician there, who either himself or as the organ of others, could have been induced to deny my statements, and the practicability of probing the Fallopian tubes in certain morbid conditions of those organs, or who does not know that in hydrops tubalis the tube is often sufficiently distended to admit the hand, if the uterus was in a state to permit it to be reached.

Anatomy discloses the fact, that the tubes are composed of a structure capable of great distention. Physiology, that they are associatedvery intimately with the uterus and ovaries, and act in concert in health and disease. Pathological Anatomy has demonstrated, that when the ovaries are engorged, so are apt to be the Fallopian tubes, and that these organs partake in the changes effected on the uterus by the molimen hemorrhagicum; Indeed, what is called by Bennet peripheric inflammation of the uterus, is but another form of expressing the fact of the connexion existing between the lining membrane of the cervix uteri and that of other uterine appendages. Inflammation of the cervix is known to dilate the passage into the uterus to so great a degree as to admit a finger. The same cause has a like effect in dilating the canal of the Fallopian tubes.

I am moreover taken to task, in the Charleston Medical Journal, for having incidentally mentioned, in my report of the ovarian dropsy case, that I had cured some cases of dysmenorrhœa and sterility by probing the Fallopian tubes. That a number of women, long afflicted with dysmenorrhœa and sterility, have got well and become mothers, I did not mention as any thing wonderful or peculiar to my practice; as the same thing has often occurred in the practice of others, whether they profess to treat such cases by catheterism or not. The error consists in the gross darkness of the pretended Natchez Doctor on the subject of uterine complaints, leading him to suppose that in the diseased condition, the canals leading into the uterine cavity are more constricted than in the healthy state, and consequently more difficult to probe. Increased sensibility of the parts, and not constriction, might make the operation difficult. Leeching, bathing, steaming the uterus direct by an instrument for that purpose; purgatives; cold applications; camphor; anodynes, etc., are measures,

some one or more of which would remove exalted sensibility. So far, however, from the blood determined in increased quantities to the uterus and its appendages *constricting* the calibre of its canals, the very opposite effect is produced. This must of necessity be the case, from anatomical construction. If this great law of uterine congestion did not obtain, a woman could never have a child. The Fallopian tube would be too small to let the ovum pass through it—the cavity of the organ too small to admit of its growth, and the cervix too narrow to give it exit. Dr. J. Reid and others have demonstrated, that the mucous membrane of the uterus possesses a tubular structure, which, during the catamenia, as well as after conception, causes the glandular follicles to become widened and enlarged. Thus the discidua is formed, and it is known that the ovum, in passing through the Fallopian tube, receives the covering called the chorion, and that the discidua is formed whether the ovum reaches the uterus or not. From the time of Morgani it has been known, that in certain forms of dysmenorrhœa the uterus, instead of secreting a fluid, forms a membrane, or organized substance of a triangular shape, corresponding to the shape of the uterine cavity. Unless the cervical canal were abnormally dilated, this membrane could not be extruded. The operation of McIntosh consists in dilating the cervix uteri to free it from the obstructing membrane. That the lining surface of the Fallopian tubes should also secrete membrane, when the uterine cavity does, is not improbable. The same pathological law which causes the cavity of the neck of the uterus to expand and become easier to probe, would likewise have a similar effect upon the canal of the Fallopian tubes. Like the afferent and efferent lymphatic vessels, the causes enlarging or contracting the one, must, as a general rule, have the same effect upon the other.

But I have not time to pursue this subject further. My principal object being in this communication to protect, as far as I can, the little grains of seed I have brought to the door of the storehouse of knowledge, from those who would condemn and destroy them as unsound and worthless trash. And now I request those editors who have published the remarks in the Charleston Medical Journal of the pretended Natchez Doctor, calling in question the truth of my report in the ovarian dropsy case, to publish this communication as an act of justice to their readers. As to myself, I have no favors to ask. To perform the duty I owe to science, without fear or favor, is the climax of my ambition.

New Orleans, May 22, 1852.

Note.—In this number a case is reported by Dr. Macgibbon, in which one of the Fallopian tubes was greatly enlarged by disease; thus tending to establish some of the views enunciated in the foregoing paper.

(*Ed. N. O Med. and Sur. Journal.*)

Part Second.

EXCERPTA.

FORENSIC MEDICINE.

I.—*Infanticide by the Immersion of the Child in Pulverulent Substance.**

Translated from the French of Adrien Beranguier, for the New-Orleans Medical and Surgical Journal,

BY R. H. M.

There are few subjects in forensic medicine which present so many different problems, as infanticide. Each repetition of the crime is attended with new circumstances and contrivances not resorted to before. The circumstances of fact are infinitely diversified, and give rise to difficult and delicate questions for the medical expert, whose business it is to interpret them. The following is a case of infanticide, by means of which no mention is made in our classical works on forensic medicine, and which, for this reason, seems to me sufficiently interesting to be published.

On the 29th December, 1850, Martiane Combres was sentenced to hard labor by the Court of Assizes at Tarn, upon the following state of facts, as charged in the accusation against her.

About the end of the previous summer, this woman, aged 29 years, and a widow for the last four years, ascertained that she was pregnant; she concealed her pregnancy, even from her mother, and on the 9th October she was delivered in her chamber, and alone, of a male child. In order to get rid of the child, she strangled it, or attempted to strangle it, and hid it in a grease pot filled with ashes.

Was the child still-born when she deposited it in the ashes? This was the most important question of all others in the examination of the matter, and it

* The valuable contribution of M. Beranguier, in exposing a case of infanticide which had not yet been foreseen in forensic medicine, supplies a real hiatus in this department of medical practice. We earnestly invite to this subject the attention of our confreres, whose position may furnish them with analogous cases.

was not without some difficulty and some hesitation that I decided it in the affirmative.

Called upon immediately after the discovery of the crime, I wrote the following report:

In the year 1850, on the 10th of October, at two o'clock in the afternoon, we the undersigned, etc., on the requisition of the justice of the peace of our canton, after having taken an oath before that magistrate, to make our report and to give our opinion on our honor and conscience, proceeded with him into the Department of Confonleux, for the purpose of there examining the woman Martiane Combres, widow Cols, who was supposed to have been recently delivered, and to ascertain her condition, as well as that of a new-born child, which was said to be concealed in her house.

I. *Examination of the Mother.*

On arriving at the house, we found, in a chamber on the ground floor, the widow Cols dressed and lying on her bed. Our visit seemed to arouse her from a drowsiness or stupor, real or feigned.

1. Her face was pale and covered with the confluent freckles which are peculiar to pregnant women, and which do not disappear until some days, or even weeks, after confinement.

2. The pulse was small, concentrated and very frequent. Her countenance expressed at the same time dejection and astonishment.

3. The breasts were a little tumefied, and slightly distended. On pressing them gently towards the nipple, they yielded a few drops of a sero-lacteous liquid, of a yellowish color, and of a nauseous odor.

4. The belly was flabby, wrinkled, and covered with *striæ* and whitish and well-defined streaks on the side of the groins. There was also to be seen a broad, brownish mark, more distinct below than above, extended from the median line from the pelvis to the navel.

5. On applying the hand to the hypogastrium, an ovoidal tumor was discovered, which extended a little above the os pubis.

6. The external genital parts were slightly tumefied; the vulva a little open; there was a discharge of reddish blood, not fetid; the fourchette was flexible and very depressible, not torn; the orifice of the neck was widely distended, admitting two fingers easily; the lips of the neck were short, soft, thick, inflated, and, as it were, fringed.

7. We add, that this woman had had other children, and that the basin was ample, well-formed, and adapted to an easy accouchement.

Conclusions.—From these seven observations we maintain—

1st. That the widow Cols had been delivered within twenty-four hours, at farthest; which is proven by the external condition of the breasts and of the belly, by the character of the bloody discharge, and by an examination of the genital parts, external and internal. (See arts. 3, 4, 5 and 6.)

2d. That no other illness than an accouchement could have produced the *ensemble*, the series of circumstances which we observed.

3d. That the delivery must have been prompt and easy. (See art. 7.)

II. *Examination of the Child.*

After having examined the woman, the body of a male infant was presented to us, which the justice and myself found covered with ashes, in a grease pot, and which we discovered, from indications furnished by the accused herself, in a small chamber contiguous to hers.

The body was immediately conveyed to the Mayoralty of Rabasteus, to the Justice's office. There, after having washed it several times, to free it from the ashes with which it was covered, and taking care not to immerse the mouth in water, we observed:

1. That the child was large, fat, well formed, without fœtidness or any other sign of putrefaction, and that there was a perfect proportion in size between the lower and the upper members.

2. It weighed 2 killogrammes and 525 grammes. Its length was 50 centimetres; 26 from the vertex to the navel, and 24 from the navel to the soles.

3. The upper members were flexible and pale; the lower members were rigid, and exhibited some violaceous spots towards the inner surface of the thighs.

4. The thorax was well arched, and very sonorous on percussion.

5. The sexual parts had acquired a complete development; the two testicles were found in the scrotum.

6. The entire skin was thick, white and perfectly organized; the nails of the fingers and toes were well formed. On the head the hair was thick, black, and a centimetre and a half in length.

7. There remained at the navel a very short piece of the umbilical cord, the length of which was not quite two centimetres. The smooth and rectilineal section demonstrated that it had been cut with some sharp instrument, such as a pair of scissors, or a knife. I found no trace of a ligature.

8. The face, and all the skin of the cranium, especially on the left side, were of a color very nearly approaching violet; there was no tumor and no external lesion apparent in this region.

9. On removing the skin, the bones of the cranium were found to be hard, and resisting to pressure; they were of a violaceous color, especially on the left. This coloration, which was very decided on the outer surface, did not extend to the entire thickness of the bone, and was not found on its inner surface; it seemed to exist only in the pericranium. There was no trace of a fracture, neither at the arch nor at the base of the cranium. The anterior fontanel was not of the largest size, while the posterior was so small as to be scarcely appreciable.

10. The substance of the brain seemed to be healthy, but it was *a little paler* than it is usually in new-born children.

11. From the fold of the chin to the sternum, and upon a surface having the form of a trapezium, with the long side turned down, all the anterior portion of the neck was very red and fretted, as if it had been scraped with some sharp instrument; the skin, as if denuded of the epidermis, was of a red *vermillion*, as if it had been scratched with the nails. Nevertheless, on incising it, we found no subjacent lesion. Dissected with care, the fatty layer, the muscles, and the thyroid gland exhibited no trace of ecchymosis. I did not find there even the least drop of extravasated blood; the larynx and the tracheal exhibited no fracture; their mucous membrane, slightly coated, was entirely normal, as to its texture and color.

12. The mouth, the palate, the larynx, the nostrils, the neck of the windpipe, the pharynx, and even to the entrance of the glottis, were covered with ashes. They were also found in the entire upper third part of the œsophagus.

13. Proceeding next to open the stomach, we observed that under the bistoury the muscles were red, with a beautiful flesh color; a small drop of black blood flowed from each little vein that was divided by the instrument.

14. In the thorax we found the organs well formed. The lungs seemed to cover the entire pericardium; they were rosy, and soft to the touch. We removed them from the chest, with the heart and the thymus. After having bound the tracheal and the larger vessels, we placed them in a large bucket of river water, at 16 degrees of Reaumur, and they floated. Sunk to the bottom of the vessel, these three organs rose promptly to the surface of the water. The result was the same in spring water, at 12 degrees. Cut into small pieces, the lungs crepitated under the bistoury. Each piece, pressed between the fingers under the water, rose rapidly to the surface.

15. After having removed the heart and the thymus, the lungs alone weighed 47 grammes. Their proportion to the weight of the whole body was :: 1 : 53.72.

16. The heart and the larger vessels contained black blood, but not in any considerable quantity. On the inter-auricular wall we observed a sort of transversal hiatus, capable of admitting a stylet; this was the *foramen ovale*, which was not yet obliterated.

17. It was only with difficulty that a very delicate stylet could follow the passage of the vein and the arteries of the umbilical cord.

18. The viscera contained in the abdomen exhibited no morbid change, nor any defect of conformation. The liver, of a reddish brown, and perfectly healthy, weighed 119 grammes. The bladder was empty. The larger intestine was filled with a deep green and very viscous meconium.

Conclusions.—From the facts detailed in this paragraph we considered it established—

1st. That the child was born at the full period, capable of living, and of a

good constitution ; which was demonstrated by the solidity of the bone and the proportion in size between all the organs. (See arts. 1, 2, 4, 5, 6 and 18.)

2d. That it must have been born by the head, as was shown, as well by the violaceous color of the skin of the cranium and of the pericranium, as by the absence of any indication that it had come by the feet, or by the knees, or by the breech. (Arts. 8 and 9.)

3d. That it was born alive, and that it breathed with full lungs for several moments, and perhaps for several hours, as was demonstrated by the specific lightness of the lungs. (Arts. 4, 14, and 15.)

4th. That it died a short time after its birth, as was indicated by the presence of the meconium still retained in the larger intestine, and by the condition of the vessels of the umbilical cord. (Arts 18 and 17.)

5th. That its death must have taken place within the preceding twenty-four hours, since there was no sign of putrefaction.

6th. That although there were indications of strangulation at the anterior part of the neck, and although ashes were found even at the entrance of the glottis, the death was not produced by strangulation, or by asphyxia, because the respiratory organs exhibited no change. (Arts. 11, 12 and 14.)

7th. That the death could not be attributed to hemorrhage through the umbilical cord, since the body and the viscera did not exhibit a bloodless appearance (see art. 13); and yet, the paleness of the cerebral pulp, and the inconsiderable quantity of blood found in the cavities of the heart and the larger vessels, would have justified the admission that there was a great loss of blood in consequence of the want of a ligature of the cord, and that this must have weakened the child considerably.

Consequently, we are inclined to think that there may have been an attempt at strangulation, that the hemorrhage through the cord may have compromised the life of the child, but *that it was still breathing* when it was deposited in the vessel filled with ashes.

It is not enough to be able to say to the magistrates, that the child came into the world alive and capable of living ; the medical expert must also show the manner of its death. In the present case, the infant had not lost a sufficiently large quantity of blood through the umbilical cord to produce complete anemia ; an attentive examination of the *corpus delicti* did not permit us to admit this supposition ; moreover, some accoucheurs have contended that the omission of the ligature of the cord is not always followed by a fatal hemorrhage. The chafing and excoriations observed on the anterior part of the neck, which were evidently produced during the life of the child, induced us to believe that there had been strangulation, but the condition of the subjacent organs, the absence of spumous matter in the trachea, the coloration of the lungs, &c., did not authorize us to stop at this opinion.

The child was taken from a vessel filled with ashes, and it was there that it must have died, suffocated by the pulverulent molecules. There was no as-

phyxia, since the anatomical proofs of asphyxia were wanting on the opening of the body; but it was in the ashes that the infant drew its last breath. We must adopt this latter supposition, because the ashes had descended very far down into the œsophagus, and were stopped suddenly at the periphery of the entrance of the glottis. This demonstrates that their introduction took place during life, and that the epiglottis, by applying itself powerfully on the glottis, prevented their entrance into the passages. If they penetrated there, it could only have been after death, when all the organs were in a state of quiescence, and by the shaking of the vessel filled with ashes.

The child, then, was placed in the vessel alive, and was afterwards covered with the pulverulent matter. This was so, because science demonstrates it, and because the confessions of the mother, after her condemnation, have confirmed, in every particular, the conclusions of the report.

There are other questions, purely scientific, which present themselves to the medical expert, and it is the object of this memoir to give their solution.

1st. In a medium composed of pulverulent substances, is death instantaneous, or may life be prolonged for some time?

2d. Under these circumstances, does the dust, such as ashes, flour, ground plaster, etc., penetrate into the respiratory passages? To what depth does it enter into the digestive passages?

3d. What are the anatomical characteristics presented by the lungs of a newly born animal thus suffocated in pulverulent matter?

These questions can only be solved by means of experiments.

Few sciences can be better illustrated by experiments on living animals than forensic medicine. All the researches, so important, of our medical jurists, testify to this fact, and are almost all based upon the experimental principle. The chapter of infanticide, especially, presents a multitude of questions which can only be solved experimentally.

This crime has been investigated under all its aspects. One page of Devergie's* Forensic Medicine is devoted to an examination of all the means contrived by unnatural mothers who have endeavored to destroy their offspring. There is not one who ever thought of suffocating the child in ashes. In the annals of French forensic medicine it is a new crime, and hence the questions which this mode of infanticide may give rise to, on the part of juries, or of advocates, are unforeseen, and require that the expert should investigate all the facts which may enable him to answer them plainly and categorically. A short note inserted in the thirtieth volume of the *Annales d'Hygiene Publique et de Medecine Légale*, informs us that Dr. Matthysien, at Antwerp, had experimented on rabbits and kittens, and of the manner in which these animals died when they were buried in ashes.† But this note is so succinct and so incomplete, that it leaves all the questions without solution, and it cannot be of any assistance to us.

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* Vol. 1, p. 614, first edition.

† Page 225.

In order to determine the three questions which I have proposed, I commenced by burying in ashes four shepherd dogs, three hours after their birth; they lived fifteen hours in this pulverulent medium; and at the autopsy, their lungs seemed to me a little redder than they are in the normal state. The ashes had penetrated even to the middle of the œsophagus; the nostrils and the pharynx were filled. Not an atom had entered the trachea; they had stopped abruptly all around the entrance of the glottis.

Before passing to other experiments, I took puppies of a large species, newly born, and let some of them die in the open air, while others were drowned in a pond of water. With the first, the lungs were slightly roseate, almost white; with the others, they exhibited a coloration of a brownish red, very decided. As to those which had been suffocated in the ashes, the lungs were of an intermediate shade. The pulmonary parenchyma, without being of a reddish brown, as in the subjects of asphyxia, was red enough to show that during life the respiration must have been difficult and painful. Nevertheless, I did not find any spumous matter in the larger bronchiæ.

Comparative experiments were afterwards made with other substances reduced to dust, such as plaster and the fecula of wheat.

The ashes always penetrated farther into the œsophagus than the other pulverulent substances. Plaster and wheat flour form a paste with the mucosities of the mouth and the pharynx, and adhere to the walls of those cavities, so that the motions of deglutition cannot make them enter into the digestive channels and conduct them into the stomach.

In the fecula of wheat, the animals lived seven hours less than in the other pulverulent substances; it seemed to become agglutinated on the epiglottis and to impede its movements; nevertheless, the puppies suffocated in wheat flour did not exhibit at their autopsy a pulmonary parenchyma of a deeper red than those that died in the ashes or in the plaster.

With the dust taken from the highways, the effects were the same as those produced by the plaster.

To sum up, our experiments have taught us—

1st. That the death of animals buried alive in pulverulent matter is not instantaneous; the air interposed between the molecules of the dust is sufficient to prevent their dying by asphyxia.

2d. Where animals are buried alive in pulverulent substances, the dust retained by the epiglottis, which applies itself convulsively on the glottis, never penetrates into the larynx, and rarely enters into the œsophagus. I have never found it in the stomach.

3d. The lungs of animals that have died in pulverulent substances, exhibit, in the shades of red, an intermediate coloration between that which is peculiar to the lungs of animals that have died in the open air, and that of those that have died of asphyxia.

II.—*Of Flexion of the Limbs as a Means of Suspending and even Arresting Arterial Hemorrhage.*

As arterial hemorrhage is at all times more or less dangerous and alarming, it becomes proper for us to notice all the means best calculated to put a stop to the flow of blood proceeding from divided vessels. To this end, we are pleased to notice that Dr. Bobillier has turned his attention to this subject—the views of whom we shall abridge from the February number for 1852 of the *Journal des Connaissances Medico-Chirurgical.*

This gentleman has found, from experiment, that when certain arteries, situated about the joints of limbs, are wounded, the hemorrhage therefrom may be arrested permanently, by flexing the limb forcibly upon itself. By this means he arrested a hemorrhage from a wounded radial artery; and in another case, the same means succeeded after compression, etc., had been fairly tried and failed.

The third was the case of a man whose brachial artery was wounded by a blow with a knife, just in the bend of the arm, at the usual point of venesection—the hemorrhage was frightful, and the patient was so situated, and the accident was so unexpected, that the application of a ligature was utterly impracticable in the case. Violent and permanent flexion of the fore-arm upon the arm arrested the bleeding.

Dr. Bobillier deprecates any desire to place flexion of a limb in competition with the ligature, for arresting hemorrhage. He contends, however, that it is a precious means, under certain circumstances—when the usual instruments for the application of ligatures are not at hand.

In 1834 M. Malgaigne, in his *Manuel de Medecine Operative*, speaks favorably of strong flexion of the fore-arm upon the arm, as a means of arresting hemorrhage from wounds of the brachial artery. Four years thereafter, he mentions a case in which he arrested a hemorrhage from the popliteal artery, by flexing the knees. (*Ed.*)

III.—*Cyanuret of Potassium in large doses in Traumatic Tetanus—Efficacy of Chloroform per anum et per os.*

In the May No. for 1852, of *L'Union Medicale de la Louisiane*, published in this city, we learn that Dr. St. Martin succeeded in arresting the formidable symptoms of tetanus by large doses of the *cyanuret of potassium*, aided by chloroform given internally.

A lady of this city, aged about 35 years, was thrown from her carriage, and her head struck against the curb-stone, causing a flesh-wound, which extended

from the border of the scalp to the eyebrow. Notwithstanding the precautions adopted by her medical attendant, on the 18th of February, five days after the accident, unequivocal symptoms of tetanus were fully developed. The case being determined, and the symptoms threatening, Dr. Martin ordered the following portion:

Gum-water,	f ℥ iv	
Cyanuret of Potass.	gr. vi	M.

The patient took of this half table spoonful every half an hour, at first, then the same dose every hour.

The same medicine was continued, varying the dose according to the symptoms, up to the 4th of March, without any amelioration of the intensity of the tetanic spasms. At this time Dr. St. Martin suspended the Cyanuret of Potassium, and substituted Chloroform in 20 and 30 drop doses, both by mouth and rectum. Under the latter treatment, the author of the report tells us, the symptoms of rigidity were perceptibly diminished, and by continuing this treatment, the patient by the 14th of March was fully convalescent. The patient, during the 16 days' illness, took 186 grains of the *Cyanuret of Potassium;* but we are unable to discover from a perusal of the case, that any material benefit was derived from its use; no improvement was manifested until the *Chloroform* was substituted for the *Potassium.* We are rather disposed to give the credit of the cure to the judicious regimen adopted by the Physician, and to the lapse of time—it being well understood that this formidable disease is but little influenced by the most enlightened medication, and it usually exhausts itself or the patient in fifteen or twenty days. (*Ed.*)

VI.—*The Cause and Prevention of Death from Chloroform.*

Dr. Snow said that when dogs, cats, or rabbits were made to breathe air containing from three to five per cent of vapor of chloroform till they died—a process which occupied generally from ten to fifteen minutes—the heart continued to act for a minute or so after the breathing had ceased, as he had ascertained by means of the stethescope, and then, in some instances, the animal gave a few gasping inspirations about the time when the heart was ceasing to act, which had the effect of restoring it to life. On the other hand, when such animals were made to breathe air containing eight per cent or more of the vapor, death took place very suddenly, the respiration and the heart's action ceasing together. He had indeed performed three experiments in which the action of the heart stopped before the breathing. In experiments with sulphuric ether, the action of the heart always survived the respiration, as air containing fifty per cent of ether vapor was not more powerful than when it contained but five per cent of vapor of chloroform. Ether could, however, be made to act directly on the heart, by continuing to exhibit it by artificial respition after the natural breathing ceased.

He believed that no accident had occurred from the continued exhibition of chloroform vapor, well diluted with air. In the fatal cases which had happened,

death had taken place suddenly, by the way of syncope, showing that the heart had been paralysed by the action of vapor constituting not less than eight or ten per cent of the air inspired just before death. He enumerated all the deaths which he considered to have been caused by the administration of chloroform. They were eighteen in number. In sixteen of these, the agent was exhibited on a handkerchief, or towel, or piece of lint, and in the two cases in which some form of inhaler was employed, it was not used by a medical man. The subjects of these accidents had enjoyed a greater amount of general health than the average of those who had taken chloroform; none of them were children or old people, and the operations which were intended or had been commenced, were, with two or three exceptions, of a trifling nature. He considered the reason of this to be, that under such circumstances the same amount of care was not always employed as in more serious cases. There were two methods of ensuring the dilution of vapor of chloroform with atmospheric air, to such an extent that death could not occur without giving sufficient warning to allow of accidents being prevented by ordinary attention and skill.

The first and best of these methods was, to exhibit pure chloroform by means of a suitable inhaler; the other method was, to dilute the chloroform with rectified spirit of wine, before pouring it on a handkerchief or sponge. One part, by measure, of chloroform, to two of spirit, which constituted the strong chloric ether of Dr. Warren, of America, answered very well; but he (Dr. Snow) gave the preference to equal parts, by measure, of chloroform and spirit, which he was in the habit of applying by means of a sponge, in operations on the face, when he could not employ the inhaler. The best means to be employed in case of impending death from chloroform, was artificial respiration. He believed, from experiments he had performed on animals, that if it were instituted within half a minute of the apparent death of the patient, it would, in the greater number of cases, be attended with success. If this measure did not very quickly restore the patient, it would be advisable to open the external jugular vein, whilst still continuing the artificial breathing, in order to relieve the distension of the right cavities of the heart, which in these cases begins to take place as soon as its action ceases.

Dr. Crisp had found that twenty cases of death from chloroform had been published. He had placed them in a tabular form, and enumerated them to the Society. His opinion respecting chloroform, deduced from those cases and his own observation was, that we could not employ it, even to healthy individuals, without some amount of danger. He differed from Dr. Snow in his opinion regarding the impossibility of robberies being effected by the agency of chloroform, as it might easily be applied to half inebriated persons. An important question was, what are the ultimate effects of chloroform on those who take it in surgical operations? This, he contended, could only be answered by 15,000 or 20,000 cases.

Dr. Theophilus Thompson inquired the experience of Dr. Snow respecting the effects of chloroform on the system in certain cases in which the change effected was often durable or important; in fact, a train of symptoms indicating more or less congestion of the brain, and lasting for many days, or even longer.

Mr. Bullock said that the effects of chloroform were materially modified by its purity; much impure chloroform was manufactured. He had seen it administered to a patient, who was three hours under its influence, without any bad effects.

Mr. Richardson believed that cases of death from chloroform had occurred which had not been alluded to by Dr. Snow, and he mentioned one in particular which had taken place in Bruges. In deaths from chloroform in animals,

he found the right side of the heart congested, and left auricle contracted ; for thirty-five minutes after death in one case—the peristaltic action of the bowels also continued after death.

Dr. Camps considered that the influence of idiosyncracy should not be overlooked in estimating the effects of chloroform in particular instances. He believed that the first effects of chloroform were principally on the nervous system.

Mr. Barlow thought that the danger of administering chloroform by sprinkling it on a handkerchief, had been overrated. If there were not too much chloroform used, if the handkerchief were not placed too near, and there were not too many bystanders, and the patient were properly watched, he saw no reason to fear the administration of chloroform without an instrument. Proper note of the effects of chloroform during its administration was most essential. One person should always be watching for these effects. He had never seen a patient in danger, so long as the iris remained contracted; but if the iris dilated, the inspiration became difficult and the pulse flagged, the chloroform should be immediately discontinued. The deaths in some cases, he believed, had arisen from the desire, on the part of the operator, to administer the agent too rapidly. When death occurred, he believed it was from the heart becoming suddenly affected. The history of cases, however, in which the use of chloroform had been attended with a fatal result, had not, in some cases, been sufficiently stated for us to form a correct opinion upon them ; often the previous condition of the patient was not mentioned. In some of the cases better recorded, a defective condition of the structure of the heart was present. What should we do in a case of poisoning by chloroform ? We should employ all the means recommended by Dr. Snow, and more especially resort to artificial respiration early.

Dr. Sibson said, that owing to the researches of Dr. Snow, we were now in a condition to determine the exact quantity of chloroform which was admitted into the system. He believed that in cases of death from chloroform, it was the heart that was at fault ; the symptoms presenting themselves, such as sudden pallor, etc., showed this to be the case. He did not agree with Mr. Barlow, that it was necessary to stop the chloroform when the iris contracted, as in some cases, as of dislocation and hernia, it was necessary to carry the use of the agent beyond this point, which might be done with safety under proper precautions. With respect to the use of chloroform in neuralgia, it was not necessary to carry it to the extent of unconsciousness ; anæsthesia was produced before this. With respect to the number of deaths which had occurred from the use of chloroform, he thought this was little, in comparison with the number of persons who had been relieved by its use.

Mr. C. Clark inquired the experience of members in respect to the employment of chloroform in midwifery.

Dr. Murphy advocated its use in midwifery in suitable cases, and with proper precautions. Deaths from chloroform were usually the result of carelessness in its administration—deaths resulting from the employment of too concentrated a dose, which acted suddenly upon the heart.

Dr. Chowne spoke at some length on the importance of the subject, and the circumspection which was necessary to be observed in the employment of chloreform. With respect to its use in midwifery, he thought many disasters had resulted from it, not only as referred to immediate, but to after consequences. Many cases had occurred which had not been published. He cautioned the members respecting the employment of chloroform, to which he was no enemy, but he was desirous to see its use accompanied with the greatest caution.

Dr. Snow said in reply, that the difference between the number of the deaths from chloroform in the list he had given, and in other lists, arose chiefly from the circumstance that he had excluded some deaths which had been attributed to this agent, but were due, in his opinion, to other causes. The case of the child mentioned by Dr. Crisp, for instance, occurred in Germany, during the excision of a very large nævus on the side of the face and neck, which surgeons, who had seen the case previously, were afraid to meddle with. The operation lasted eighteen minutes, only nine drops of chloroform were applied altogether, and none at all during the last eight minutes. Death was evidently due to syncope from the effects of the operation. As regarded the cases in which death happened during a second attempt to render the patient insensible by chloroform, they could not be attributed to the cumulative effects of the vapor which had been inhaled during the first process; for chloroform could not accumulate for more than twenty or thirty seconds; after this time it began to be exhaled again. These cases clearly illustrated the uncertainty and irregularity of the means which had been employed in administering the chloroform, and showed that the accidents were not due to any peculiar susceptibility to its effects on the part of the patient, who could not have two different idiosyncrasies nearly at the same time; first, a want of susceptibility, and a few minutes or half an hour afterwards, a greater susceptibility than usual.

In reply to Dr. Theophilus Thompson, Dr. Snow stated, that he had not met with any unpleasant sequelæ which he considered to be the effects of chloroform, except sickness, which had in a few cases been troublesome for two or three days, and hysteria, the latter of which might certainly occur from an operation without chloroform. If depression existed from the long-continued administration of chloroform, it should be removed by warmth and cordials.

(*London Lancet.*)

V.—*On the treatment of Cancer by the Lactate of Iron, taken by the mouth and injected into the veins.*

BY DANIEL BRAINARD, M. D.

About two years since I communicated to Prof. Mussey, chairman of the Committee on Surgery of the American Medical Association, some reasons which I had for supposing that the lactate of iron was possessed of more influence over cancer than any medicine yet known.

I have, since that time, had occasion to prescribe it often, with results which, while they confirm the views expressed in regard to its efficiency in checking it, have not shown that it was capable of entirely curing it. This result was to me neither surprising nor discouraging, as I have already formed and expressed the opinion, that to effect a cure, "the whole of the solids and fluids of the body must be brought under its influence." That this is not effected by the simple introduction of medicines into the stomach, is sufficiently obvious, and indeed to be expected, since the medicine, used in that way, is subjected to the action of the same nutrition and absorption under the influence of which the disease has originated. It is necessary to go behind this; and one of the means of doing so is by injecting it into the veins. It is only recently that I have had an opportunity of putting this method to the test of practice.

Case. *Dec.* 13, 1852. W. H. Plumb, æt. 56 years, Englishman, applied to me on account of a tumor of the left orbit.

He gave the following history of his disease:

"About twenty-five years ago he had a disease of that eye, called by his Physician cataract, which entirely destroyed the vision, but for which no operation was performed. About five years ago he received an injury of that eye, from a stick striking against it, which was slight, and gave but little pain. About seven months after this blow, he noticed a tumor, no larger than a pea, at the inner canthus, "sending off roots into the eyeball." At this time the tumor and eyeball were removed together by Prof. Smith of Baltimore. The wound cicatrized well.

He remained in pretty good health about four years, when a tumor made its appearance at the lower and inner part of the orbit, which in eight months attained the size of a large hickory nut. It was then operated upon again, but at the end of about six weeks recommenced to grow, and at the time of this examination, was of the size of an orange, filling up the whole of the orbit, and projecting in front of it. Its surface was nodulated, elastic, pulsating, ulcerated to a great extent, and from this point there oozed a bloody serous fluid. He was thin, but not sallow, and his health was not very much impaired. He complained, however, of acute lancinating pains through the orbit and head.

16th. Extirpation was performed in presence of the hospital class. It was found so firmly attached to the lower part of the orbit, that it was necessary to remove the periosteum with it, and at the back part it could not all be removed. There remained a muscular mass, which bled profusely, and which was so soft as to break under the forceps or tenaculum. After several ineffectual attempts to apply a ligature, the actual cautery was resorted to and succeeded. The wound was dressed with lint. No inflammation followed. There was a copious discharge of red serum for a day or two, which gradually became yellow, and afterwards changed to pus. He was put, from the day of the operation, on the use of lactate of iron gr. v, three times a day in solution.

31st. Injected into his veins f 3 j of the following solution:

Ferri lactis,	gr. viij
Aq. dist.	℥ j

Jan. 3, 1852. Injected 3 ij of the same solution.
6th. f 3 iij thrown in.
14th. 3 ijss injected.
22d. 3 ij.
26th. 3 ij.
28th. 3 ij.
Feb. 3d. 3 ij injected. 9th. 3 ijss.

During the whole of this time the wound cicatrized rapidly. At first luxuriant granulations sprang from the surface, which were repressed by the application of nit. silver. Lancinating pains continued for some time, but gradually diminished, and at length subsided.

In six weeks from the operation the cicatrization was nearly complete. In eight weeks he returned home perfectly well.

The question, whether the diseased mass was a cancer. I do not hesitate to decide in the affirmative. Its history and appearance sufficiently indicate this; its interior perfectly resembled the brain of an infant in a vascular state, and under the microscope it exhibited the most perfectly formed cancer cells. Dr. Johnson, resident physician, fully coincided in this point.

Whether it would have cicatrized without the use of the lactate of iron, cannot be determined with the same degree of certainty. Taking into consideration the return, when last extirpated, with the fact that it was afterwards im-

possible to remove the whole of it, I think the probability of obtaining cicatrization by ordinary means was slight. I should not, however, have thought of performing, or attempting extirpation, but that the patient, who is intelligent and trusting, expressed his desire to be submitted to the treatment, when it was explained to him.

I am aware that many surgeons, under the influence of preconceived opinions, may regard such treatment as hazardous. I had fully convinced myself that such was not the case. I have repeatedly thrown gr. x lactate of iron, imperfectly dissolved in an ounce of water, into the veins of a small dog, without producing in any case peculiarly bad results.

It will be seen that gr. iij was the largest quantity thrown in at a single time. It was passed in gradually and cold, and as soon as sensible effects were produced, it was stopped. The effect noticed was a flush of the face, a fulness of the veins of the head, and a tendency to sneeze, which all passed over in a few seconds. The circulation otherwise was unaffected. If the case had not progressed favorably, and it had seemed advisable to change the nutrition more profoundly, I would have had the solution warmed and put it in slowly until its effects were perceptible; then allowing it to pass over, have repeated it as far as appeared safe.

Up to the time of his departure, the injection had been performed nine times, and grs. xix in the aggregate injected. When the activity of the salt is considered, it will be conceded that such a quantity is capable of having an effect on the system, by being thrown into the blood.

In addition to that, he has during this period of eight weeks, taken 3 xix of the lactate by the mouth; to what extent this may have been absorbed and carried into the circulation, or what changes it may have undergone, it is impossible to determine.

In case of a cancerous disease seated upon an extremity, I should, in addition to the two methods of administration resorted to in this instance, infiltrate the whole of the diseased and the healthy tissue about it with a weak solution of the medicine. This can readily be effected by putting a ligature, moderately tight, about the member, until it becomes œdematous, when, by the aid of frictions, the infiltration and maceration may be effected.

I had omitted to mention, that all the injections were made into the veins at the elbow.

In submitting this case to the profession, I am far from claiming for it any merit which it does not possess, or drawing inferences which no single case could warrant. It is offered as an evidence of the practicability and safety of maceration through the medium of the blood, systematically pursued with active substances, and to invite attention to other means of treating this inveterate disease than those which hitherto have been admitted by consent to be unsuccessful.

Chicago, February 21, 1852.

(*American Journal of Medical Sciences.*)

VI.—*Explanation of the Function of Respiration in Man.*

BY PROF. DRAPER.

The April No. of the *American Journal* contains a very valuable paper on "*Respiration*," by Dr. Draper, in which he sums up his views on the subject in the following words, viz: (*Ed.*)

The air introduced by atmospheric pressure, brought into play by the action of the diaphragm and other respiratory muscles, fills, in ordinary respiration, the nasal passages, trachea, and larger ramifications of the bronchial tubes. Between it and the gas coming from the pulmonary vesicles, diffusion steadily takes place, tending to remove the cell-gas into the atmosphere; but this gas is not brought from the vesicles by diffusion, which could not act with sufficient speed, but by the contraction of the circular organic muscles of the bronchial tubelets and of the cells, the different bronchial trees not acting simultaneously, but successively. As soon as the contraction is over, the tubes expand by their elasticity, and air is drawn into the cells. It is probable that in producing these results, the vibrata cilia conspire, and the effect is aided by the contemporaneous contraction of other bronchial trees, and the whole process ends with the expulsion of the foul air, which has accumulated in the larger bronchi and trachea, by the diminution which ensues in the general capacity of the chest during expiration. In respiration the lungs are not, therefore, passive, as is commonly said.

The exchange between the gas in the cells and that in the blood, does not occur through simple diffusion, or in quantities proportional to the diffusive volumes of the oxygen and carbonic acid. It is a complex diffusion, in which the disturbances arise from the gases in the blood being either dissolved or combined; and through three intervening membranes, that of the air-cells, of the pulmonary capillary, and of the blood-disk, all of which exert a condensing action, of the result of which it is impossible to furnish any numerical estimate.

Brought into presence of the hæmatin, the oxygen may possibly associate itself therewith, in a manner analogous to that which we witness under similar circumstances with deoxidized indigo.

In thus attempting to correct the account ordinarily given of the function of respiration, the only original points I present are:

1st. The necessity of admitting the *constant action* of the circular organic muscles.

2d. The *condensing action* of the three tissues, the wall of the pulmonary vesicles, of the pulmonary capillary, and of the blood disk.

3d. The probable analogy between the relation of hæmatine and another nitrogenized coloring principle, indigo.

VII.—*Quinine in Urticaria.*

BY DR. WICKHAM.

Dr. Wickham has found in the wards of M. Legroux several cases of urticaria, complicated with severe pains in the joints, yield readily to quinine; a remedy, he observes, also useful in simple urticaria, which exhibits the same fugacious characters as rhumatism. It is from its analogy to neuralgia that M. Cazenave has recommended arsenic in urticaria.

VIII.—*On the Suspension of Gum-Resins.*

BY M. POULENC.

In this paper M. Poulenc describes the mode he successfully adopts of suspending gum-resins, as assafœtida, ammoniacum, myrrh, etc., in mixtures of enemata. If the division of the body be accompanied by means of yolk of egg, it is a very tedius process; but if to every gramme of the gum-resin we add six or eight drops of sweet almond oil, it easily becomes broken up. When the oil has become well incorporated with the mass, and a homogeneous paste is produced, the vehicle is to be added, at first gradually, and then entirely. A complete emulsion is thus produced in a very short time. Another advantage of this mode of preparation is, that it allows the mixture to be warmed, if required, before employing it, without causing any coagulation. M. Poulenc employs the same means of subdividing the gum-resins which enter into the composition of emplastra.

(*Bull. de Thérap.*, vol. xli.)

IX.—*Traumatic Lesion of the Lung—Division of Intercostal Artery.*

During the troubles of February, 1848, a young man aged 18 years was wounded with the point of a bayonet, which penetrated to the depth of ten centimetres the tissue of the lungs, between the second and third rib. Blood flowed freely, and the patient's strength was nearly exhausted, when M. Laliburac arrived near him. His skin was cold, and pulse only 55. The medical attendant, from the bright color of the blood, suspected a wound of the intercostal artery. He immediately introduced into the wound the end of his *little* finger, and pressed it forward for three quarters of an hour against the inferior border of the rib, when the hemorrhage ceased, and the wound was dressed without farther delay.

The pulmonary inflammation which followed was subdued by leeches, blisters, etc. The patient recovered.

(*Gazette Med. de Paris.*)

X.—*Mode of Administering Balsam of Copaiva.*

BY M. CHERVET.

Thirty parts of the balsam are stirred round in a glass mortar with four of sulphuric acid. The mass quickly solidifies, and may be made into pills, which may be afterwards covered with a coating of gum and sugar. If the copaiba be adulterated with castor oil, the solidification does not take place; while, if adulterated with turpentine, although solidification does take place, the mass, when placed in water, becomes covered with a white, bitter, resinous substance. The medicinal virtues of the copaiva are by no means impaired by the above proceeding, while its disagreeable flavor is destroyed.

(*Jour. de Chemie Med.* 1851.)

XI.—*Minute doses of Morphine in the treatment of Typhoid Fever.*

The May No. for 1852 of the *New York Medical Journal* contains an instructive paper on the treatment of Typhus Fever, by Dr. Bennett of Connecticut.

Dr. B. tells us he treated 30 cases of well marked Typhus without losing a single one. His practice is certainly original and peculiar to himself. Like Dr. Henry of Illinois, who gave 4 and 5 grain doses of opium in acute attacks of Dysentery, and with signal success, Dr. Bennett seems destined to put forth a plan of treatment equally at variance with the preconceived opinions of the profession.

Dr. Bennett shall speak on this subject for himself. He says : *Ed.*

This method consists simply in the continued repetition of minute doses of morphine in solution, at intervals of one, two, three or four hours, according to the circumstances of the case. I dissolve one grain of the sulphate of morphine in 4 or 6 ounces of water, according to the age of the subject and the intensity of the symptoms, and commence by giving the patient a teaspoonful of this solution every two hours. In the first stage of the disease, when there is much pain in the head and limbs, jactitation, wakefulness, etc., the repetition of this dose for 24 or 48 hours, has almost uniformly succeeded in controlling these symptoms, and they have given way to a degree of quiet, highly refreshing to the patient. The steady exhibition of the medicine in this manner soon produces a tendency to protracted sleep, and it may be necessary to abate the frequency of the dose, giving it every third or fourth hour only. After some days continuation of this treatment, it has been common to see the heat and dryness of the skin give way to a general perspiration, more or less profuse, and affording much relief to the patient. This has occurred a number of times during the course of the disease, in some cases the first alleviation of the symptoms being followed by an exacerbation, which again yielded to the same favorable conditions. In other instances, the disease has seemed to yield its severity almost to the first decided impression made by the exhibition of the medicine. The following case, condensed from my notes, was most striking in this respect.

We omit his cases ; but they certainly bear unmistakable proofs of genuine Typhus.

He concludes his paper as follows :

The duration of the thirty cases treated in this manner has varied from 16 to 45 days, and the degree of the gravity of the symptoms has been very different in individual cases, although in the aggregate there has been considerable uniformity. In those cases which were protracted to four, five and six weeks, and in which delirium was a common symptom, I continued the treatment up to the period of commencing convalescence, and did not in a single instance observe any untoward symptoms which could be attributed to the protracted administration of the medicine. In no case have I seen any signs of that peculiar nausea which often follows upon the exhibition of opium in the ordinary manner, and I have attributed this exemption from so unpleasant a consequence, not only to the minuteness of the dose, but also to the degree of dilution to which I submit the morphine.

The only adjuvants to this treatment which I have employed, have been the occasional exhibition of a few grains of Dover's powder and calomel at night, in the earlier stages of the disease, before the morphine had produced a deci-

ded effect, together with now and then a laxative dose, as circumstances required at any stage of the disease.

Whether future trials of this simple method of treating typhoid fever will justify me in adopting it exclusively, is yet to be determined; but its apparent success thus far, I think, fully warrants me in giving it a further trial.

Quere? Did these 30 cases recover *malgré le traitment?* C'est possible!

(*Ed. N. O. Med. Jour.*)

XII.—*Effects of Morphine in Hernia.*

BY EDWARD W. DOMAN.

[Mr. Doman relates a case in which a laborer, a native of Suffolk, aged 32, had been the subject of left inguinal hernia for five years. It had frequently come down, but always returned on assuming the recumbent position. On the 18th he was attacked with severe purgings; and on the 19th the hernia descended, but was soon returned; but in the afternoon it again descended, and could not be returned. On the 20th he was taken home, and at 5 P. M. Mr. Doman was sent for. He found a direct inguinal hernia of the left side, of considerable size, and filling the scrotum of that side; tense and painful; he had vomited several times, and complained of much pain below the umbilicus. As he was considerably prostrated he was not bled, but placed in a warm bath and the taxis applied. Mr. Doman continues:]

After persevering with the taxis for some time, without avail, I had him put to bed, and gave him half a grain of muriate of morphine every hour, until he had taken one grain and a half. He was soon considered narcotized; vomiting had ceased and pain moderated. I again tried the taxis, without effect. Thinking that he would become still more under the influence of morphine, I left him for a short time. The taxis was again tried, but as before, without effect.

About 8 A. M. of the 21st, he had recovered from the effects of morphine; the hernia, as tense and as large as at first, and having been in that state upwards of 36 hours, I told him that I thought it would be necessary to operate, but I would first try a warm bath and bleeding. I bled him in the bath *ad deliquium*, and attempted reduction, but failed; he was now put to bed, where he became sick, very faint, and covered with profuse perspiration. I again tried to reduce it, but without any effect on the hernia. On his recovery from syncope, I told him it would not be safe to delay operating any longer. It was now ten A. M. He positively refused to allow the operation. He was again in great pain, particularly on handling. I thought if I brought him more completely under the influence of morphine, there might be a chance; and as he still refused to be operated on, I began giving him half grains of morphine every hour, until he had taken two grains and a half. About 3 P. M. he was quite narcotized, and on examining the scrotum I found it more flaccid; and on using the taxis, the hernia in a few moments passed up easily; he was immediately relieved, after having been 48 hours in suffering. He slept quietly that night, kept himself quiet all the Friday, his bowels acting that day without medicine; and after fitting himself with a truss, which he had never yet worn, he returned to his work on Monday, the 25th.

(*London Lancet*, 1851.)

Part Third.

REVIEWS AND NOTICES OF NEW WORKS.

I.—*An Address to the Graduates of the Medical Department of the St. Louis University, Session* 1851–2. By Charles A. Pope, M. D., Professor of Surgery.

On the Claims of Priority in the Exsection and Disarticulation of the Lower Jaw; containing the Report of several Operations performed. By Geo. C. Blackman, M. D., Fellow of the Royal Medical and Chirurgical Society of London.

Valedictory Address to the Graduating Class of the Medical College of the State of South Carolina. By E. Geddings, M. D., Professor of Surgery.

A History of the Art of Midwifery : A Lecture delivered at the College of Physicians and Surgeons. By Augustus K. Gardner, Fellow of the New York Academy of Medicine, &c.

The Organizing of the American Medical Association : An Address read before the Philadelphia County Medical Society, February, 1852. By the President, Samuel Jackson, M. D., formerly of Northumberland.

Thirteenth Annual Report of the Directors and Superintendent of the Ohio Lunatic Asylum to the Assembly of the State of Ohio. For the year 1851.

So many pamphlets are spread before us, embracing such a discursive range in medical literature and scientific disquisition, that the tastes of all readers may be satisfied—even to full *saturation*, save those whose caprice is boundless, and who know no satiety, even in stepping "from the sublime to the ridiculous."

To begin at the beginning—we shall not greatly err if we assign to

the address of Professor Pope the first corner in the vocabulary, in which he has sought, in an earnest, forcible and instructive manner, to rescue the Science of Medicine from the obloquy which some persons have sought to cast upon it, because its ablest advocates have not been able to claim for it infallibility, any more than have the expounders of Divinity and of Law failed to assert that of the former, were many things difficult to be understood; and in the disputation of the latter, that a "glorious uncertainty not unfrequently prevails."

To a passionate fondness of his profession, Professor Pope has superadded untiring industry and no ordinary zeal; the importance of these qualities is strenuously urged upon those whom he addresses.

The style of the author's writing is free from that *grandiloquence* so peculiar to some men, and who, in straining for effect, produce no other than that of astonishment, which quickly subsides into disgust; and who, in giving us a train of their ideas, would often be intelligible were they within the scope of mortal comprehension.

The author, also, in carrying out the position to which we have referred, has neither labored too much nor too long, a "consummation" which, however "devoutly to be wished," does not fall to the lot of all with whom we have an *inkling* of acquaintanceship through that mighty instrument—the pen!

There is a moral sentiment pervading the address which speaks well for the amenity of the heart.

In claiming that Theology and Medicine are based upon principles which shadow forth correct rules of action, Professor Pope uses the following language:

"In Theology, too, we may observe discrepancies, which no more affect the truth of religion, than do those of Physicians disprove the certainty of Medicine. There is but one true faith, as there is but one true science; and as many different sects in the one do not militate against the truth of religion, neither do the different by-systems followed by charlatans afford any argument against medicine. I would not pronounce any creed founded on the Bible entirely false; nor would I say that there are not a few grains of truth to be found in every false system of medicine; but would rather note the contrast which exists between the genuine and the false. As the barbarism and idolatry, the error and the superstition of Paganism, Mohammedanism or Mormonism, but serve the better to exhibit and enhance the simple beauty and sublime truth of Christianity, so the dignified and solid truth of Medicine are only the more apparent, when contrasted with the flimsy and groundless pretensions of Empyricism, whether in the shape of Thompsonianism, Electro-Thermalism, Hydropathy, or last, but not least, Homœopathy—that double distilled essence of humbug and quackery."

We now turn from the pages of Professor Pope, feeling assured that those to whom "the proper study of mankind is man," may not have employed their time amiss whilst perusing them.

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In urging upon the Medical Profession a new organization of the American Medical Association, Dr. Jackson does so chiefly upon the ground that the present organization is anti-republican, the Association embracing but comparatively few members (the total number being about 900), although five years have now elapsed since its organization; it is sought to make it more catholic in its fellowship, more productive of good in its tendencies. The author states that "the subject of the following discourse was not discussed by the Society, owing, probably, to the lateness of the hour; but it was ordered to be published and largely disseminated *nem. dissent.*, the meeting being very full."

The opinion of Dr. Jackson is, that Medical Colleges and Universities have too much power in the Association, State and County Societies too little, and hence it is proposed in the first article for the formation of a new constitution, that the Association be composed of delegates from County Societies only. In reference to these Societies we find the following language: "It is of primary importance to add to the respectability of the County Societies; this would be done by securing the *magnates* of the profession, and causing them to take a hearty interest in the business. These Societies are the Alpha and Omega of the government of individuals; they are the outposts of the profession, and every means of rendering them respectable ought to be used. Our great men, finding no other portal to the State Society, or to the great Association, would attend them more faithfully, and greatly add to their popularity and usefulness."

But if the "great Association" is to be composed of delegates from County Societies *only*, we are at a loss to discover the enlarged republican view which is sought to be established, and the absence of which in the present organization so fearfully horrifies the author, unless it be that County Societies are to embrace the body politic of the Medical Profession throughout the country; and this opinion we presently find to be conveyed in the following language: "A Physician will not rest night or day till he render himself worthy of a membership in the County Society."

As the author informs us at the close of his address, that he has given "*hints* rather than *reasonings*," we must leave the subject where we found it, in a state of *incubation!*

The Thirteenth Annual Report of the Ohio Lunatic Asylum, by S. W. Smith, M. D., Superintendent, is an elaborate paper, and contains many useful suggestions and recommendations for the management of similar institutions, as well as a thorough exposition of the affairs, financial and otherwise, of the Ohio Asylum.

Institutions of this character, having their origin in the philanthropic principle of the amelioration of that unfortunate class of our fellow creatures, who, from mental alienation are incapable of being self-supporting agents in the great theatre of life, imperiously demand the fostering aid of the State's government. The appeal which is now made to the Ohio Assembly for an appropriation of five thousand dollars above that of last year, and which is rendered more necessary by the abolition of the class of pay patients, will doubtless meet a ready response.

The Superintendent observes, that " on the 16th November, 1850, there were in the Asylum 308 patients, of whom 170 were males, and 148 females. During the course of the year there have been received, in addition, 133 males and 150 females, together 283 ; which number added to 318, makes a grand total of 601, namely, 303 males and 298 females. These have either been discharged, in various conditions, or are now in the house."

There were discharged during the year 300.

Assuming the average age of incurable insane persons to be $41\frac{1}{2}$ years, the cost for care and support for each person before death, is about $2000.

Dr. Ranney, Superintendent of Blackwell's Island Lunatic Asylum, New York, observes in his last report, " At the present time 10 patients may be selected in this institution, whose support has cost more than $25,000, exclusive of expense for land, erection of buildings," &c.

Private establishments for the cure of the insane, the writer regards as inadequate—a *total* and not a *partial* change is required, and hence the value of large institutions, where discipline and regimen are more strictly enforced, and where also the labor of the inmate can be made available ; the increase of value to this Asylum from that source during the year amounting to over $3000.

In the medical history of the cases, there is one class strikingly at variance with the reports of Esquirol, the proportion of puerperal cases admitted into the Salpetriere, during four years, being about 8 per cent; whilst in the Ohio Asylum last year it was upwards of sixteen per cent.

Dr. Smith, fully aware of the difficulties and responsibilities which surround his position as Superintendent of an insane institution, seems quite prepared to sacrifice many of the comforts and conveniences of life, whilst he becomes to the insane "their director and their friend."

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In his History of the Art of Midwifery, Dr. Gardner, in his introductory remarks, inveighs against the attempt which has been made of late years to educate females for the medical profession, more especially with the view of training them to become midwives. His remarks on this head are, however, more to preface the lecture than to disparage the aid of women. It must, however, be admitted, that in certain qualities and attributes, the "weaker vessel" is, by nature's great Architect, less designed to be a patient obstetrician, than by yielding to the finer sensibility of her sex, to become the trainer and admonisher of republican sons and daughters. Besides, even from antiquity, when Greeks and Romans, and even the Hebrews called in midwives to render service in the delivery of women, their aid was *subsidiary*, and in France, at the present day, "where the midwife is educated at the public expense, and where they are instructed as well as in any other country in the world, the midwife is forbidden by law to perform any obstetrical instrumental operation herself, but is obliged to send for a physician." Again, the improvements in the art of Midwifery have not entered into the *practice* of the midwife, either ancient or modern, any more than have the operative branches been made subject of study and investigation.

Whether their aim has been, in the words of Ramsbotham, "equally to escape the imputation of haste and indiscretion on the one hand, and of delay and indecision on the other," their success in *practice* stands more in painful, than in bold relief; for on the authority of Dr. John W. Francis, "the bills of mortality in London and Dublin attest, that one in seventy of those women perish in childbirth who are in the hands of midwives, whilst from the accounts of the lying-in-hospitals in those very cities, which are under the care of male attendants, parturition is fatal to less than one half of the number."

A statement like the foregoing will naturally suggest that *sometimes* "fools rush in where angels fear to tread!" G. T. B.

II.—*The East Tennessee Record of Medicine and Surgery.* Edited by Frank A. Ramsay, A. M., M. D. April, 1852. No. 1. Knoxville, Tenn. Published under the auspices of the East Tennessee Medical Society.

Tennessee is evidently looking up, to use a popular phrase ; already she claims too flourishing medical schools—one at Memphis and the other at Nashville, and now we are called upon to announce the appearance of a *second* medical journal, published at Knoxville, under the editorial charge of Dr. Ramsay.

The number issued presents quite a handsome front, and embraces 100 pages, published every three months, at $2 per annum. It contains seven original articles. all well written, and many of them quite instructive. The first is from the pen of our whilome associate and ever fast friend, Dr. E. D. Fenner,—and like all his productions, indicates a real love for the profession, and an anxious desire to forward its best interests.

The editor, Dr. Ramsay, spreads before the profession in this number, a long Report on the Epidemics of Tennessee and Kentucky. It abounds in valuable suggestions and useful information on a great variety of diseases.

We cordially welcome this new journal to our list of exchanges.

III.—*The Principles of Surgery.* By James Miller, F. R. S. E. F. R. C. S. E., &c., &c. Third American from the second and enlarged Edinburgh edition. Illustrated with 240 wood engravings. Edited by F. W. Sargent, M. D. 1852.

The Edinburgh Professors, as in days of yore, still hold a high rank among the medical *savans* of the age. Conservative in their theory and practice, they may be justly considered the best teachers to the young almost any where to be found at the present day. Reared and educated on classic ground, they constitute excellent models in the art of composition, in force of diction, chastity of style, and that directness and brevity of expression by which true science should be made manifest to the world.

Professor Miller's Principles of Surgery—it should have been of "Medicine"—have already reached the third American edition—thus

indicating at once its great popularity and its intrinsic value. This edition is far superior, both in the abundance and quality of its material to any of the preceding. We hope it will be extensively read, and the sound principles which are herein taught, treasured up for future application.

The book is indeed invaluable to both the student and active practitioner; it is worth a cargo of compendiums, so styled, and should be made to supersede the catch-penny trash that is thrust into the student's hands the instant he crosses the threshold of many of our medical schools. The illustrations and text are fair specimens of Philadelphia manufacture, and detracts nothing from the value of the doctrines therein taught. The work takes rank with Watson's "Practice of Physic"—it certainly does not fall behind that great work in soundness of principle or depth of reasoning and research. No Physician who values his reputation or seeks the interest of his clients, can acquit himself before his God and the world, without making himself familiar with the sound and philosophical views developed in the foregoing book. It may be had of J. B. Steel, 60 Camp street.

IV.—*Illustrated Manual of Operative Surgery and Surgical Anatomy.* By MM. Bernard and Huette. Edited by Van Buren and Isaacs. New York. Part II. 1852.

We are indebted to the publisher, H. Bailliere, for the Second Part of Bernard and Huette's Operative Surgery—the First Part having been received and duly noticed in our May issue.

The work, we are informed in a note, "will be speedily completed," when it will be one of the best works of the kind in any language. The various surgical operations are here briefly described and illustrated with most superb steel engravings—so distinct and perfect in fact, that when gazing on them and watching the knife as it glides through the tissues, we instinctively look to see the blood gush from the divided vessels.

When we shall have received the work complete, we shall have more to say of its value. It may be had in this city.

V.—*A Complete Treatise on Midwifery, or the Theory and Practice of Tokology. Including the Diseases of Pregnancy, Labor, and the Puerperal state.* By Alf. A. L. M. Velpeau, M. D. From the French. By Charles D. Meigs, M. D., etc., etc. With illustrations. Philadelphia, Lindsay and Blakiston, 1852.

Of M. Velpeau it may be justly remarked, that he has no superior at the present day in his profession. As a writer on Surgery and an operator, he ranks with the most illustrious names in Europe; and his work on Tokology is fully equal to any on the same subject. How extensive his knowledge—how varied his researches in medical science! With equal exactitude of knowledge he traces the development of the ovum from the moment of its first vivification, with the formation of callus in fractures—the reparation of structures in the soft parts—and on all these various subjects he is equally well informed —exact and accurate.

The style of M. Velpeau as a writer, is to us exceedingly fascinating; and we first acquired a fondness for obstetrical science by reading his work on the subject.

The present edition is much improved over any of the preceding— and the illustrations more numerous and better executed. Dr. Meigs has performed his part of the work with his usual ability.

White has the work for sale.

VI.—*An Address on the occasion of the Centennial Celebration of the Founding of the Pennsylvania Hospital. Delivered June*, 1851. By Geo. B. Wood, M. D.

We are indebted to the accomplished author for the above Address —which numbers 141 pages—is handsomely finished, and abounds in statistical facts and other matters pertaining to the history of one of the oldest and best regulated Hospitals in the United States.

The Pennsylvania Hospital is a model for all similar institutions; and the account given of its early endowments—struggles—resources, etc., by Dr. Wood, is exceedingly interesting, and written in that plain

and finished style characteristic of all the literary productions of the author.

We refer those interested in the history of such institutions to the Address for much useful information.

Doctor Wood will please accept our thanks for this mark of his courtesy.

VII.—*An Analysis of Physiology. Being a condensed view of its important Facts and Doctrines, designed especially for the use of Students.* By John J. Reese, M. D., Lecturer on Materia Medica and Therapeutics in the Medical Institute of Philadelphia, Physician to Will's Hospital, Fellow of the College of Physicians. Second edition, revised and enlarged. Philadelphia: Lindsay & Blakiston. 1852. 12mo. pp. 368.

To the enterprize and courtesy of Mr. J. B. Steel, 60 Camp street, we are indebted for a copy of the second and very recent edition of this small but very valuable compend of physiological science.

By the untiring experiments of physiologists, never more industrious, perhaps, than at the present day, frequent revisions and republications of conveniently arranged manuals, are rendered necessary, if we would ascertain what is actually known or received by the profession. Since the period at which the first edition of Dr. Reese's work appeared, many new and important facts have been developed; and doctrines which were then only hinted at, or had never been conceived, may now be considered as sanctioned by the approbation of the highest names. Consequently, this edition of the Analysis has undergone an entire revision, has been re-written and much new matter added. We suppose that for the present, the student of medicine will find it a valuable aid in revising his studies; but the time is not distant when important and even radical changes, exploding some of the oldest and apparently best settled doctrines, and substituting for them those as little likely to meet a gracious reception, as were the teachings of Gallileo and Hervey in their day, are to be presented for consideration and adoption. The present prospect is, that among other important changes working, and to be wrought out, by this spirit of severe and restless investigation, our views of the functions of the nerves, as developed and taught by Sir

Charles Bell, are destined to become essentially altered, if not proved a splendid fallacy.

In the perusal of the volume before us, we have been much gratified at the condensed yet lucid manner with which what is known or received as true, is exhibited; and we had marked a number of passages as illustrative of this excellence, intending to cite them in detail. As we have, however, already been betrayed into an unusually lengthy notice of it, we must forbear. It is well worth the attention of either the student who has much else to *read*, or of the practitioner who has, or wishes to have, much else to *do*. J. S. C.

VIII.—*Essays on Life, Sleep, Pain, etc.* By Samuel Henry Dickson, M. D., Professor of Institutes and Practice of Medicine in the Medical College of the State of South Carolina. Philadelphia: Blanchard & Lea. 1852. pp. 301. 12mo.

Dr. Dickson's reputation as a lecturer is well known, and the ease and grace of his compositions are pre-eminent in the little work before us.

In his Essay on *Life*, our author, in common with others, who have written on the same subject, seems perfectly aware of its difficulty, and after exposing the fallacy of those who endeavor to show that life is the consequence of chemical combinations and affinities, contents himself, as we think wisely, in considering it a principle emanating directly from the Supreme Being. He differs from most modern Physiologists in believing *organization* to be the result of *life*, and not that *life* is the result of *organization*.

The Essays on *Pain*, *Sleep*, etc., are interesting, and evince much research. That upon *Hygiene* is invaluable. It is almost entirely practical, should be in the library of every family, and often consulted. The remarks concerning the ages at which children should commence going to school, and the hours of their attendance, are admirable and we are sorry we cannot make room for their insertion.

The last Essay is entitled "*Death*," and in this the author has scattered so many flowers of language from his own gifted and highly cultivated mind, as well introduced so many elegant quotations from others who have thought and written upon this solemn theme, as to

make the contemplation of a subject which instinctively we dread, rather agreeable.

The chief complaint which can be urged against Dr. Dickson's writings is, their rarity. We hope to see this amended.

The book may be had at the establishment of Mr. J. B. Steel, No. 60 Camp street, to whose courtesy we are indebted for an early possession of the volume before us. J. S. C.

IX.—*Elements of Chemistry, including the application of the science to the Arts.* By Thomas Graham, F. R. S., Professor of Chemistry in University College, London, etc. Second American, from an entirely revised and greatly enlarged English edition. With numerous wood engravings. Edited, with notes, by Robert Bridges, M. D., Professor of Chemistry in the Philadelphia College of Pharmacy, Lecturer on Chemistry in the Philadelphia Association for Medical Instruction, etc. Philadelphia: Blanchard & Lea. 1852. Part 1st. pp. 430. 8vo.

It is well known to the profession, and to many others who make this department of the natural sciences their study, that on the first appearance of Dr. Graham's "Elements of Chemistry," it obtained an immediate and well merited reputation. The labor since bestowed by its indefatigable author in his copious selection of facts from all reliable sources, their excellent arrangement, the clear expositions of theoretical views, and the acquaintance manifested throughout with special treatises on all the kindred sciences, have combined to place the present edition far in advance of its predecessor. This is proved, so far as the popular estimate is concerned, by the fact that the "numerous inquiries for the new edition of Graham's Chemistry" have induced the publishers to issue separately the first half of the work. We are glad to note that they have done this in a cheap form, because, inasmuch as it includes the application of the science to the arts, it is thereby more available to all who choose to pursue their daily vocations by the superior and surer lights of science.

We shall anticipate with pleasure the completion of the work, and hope to possess the whole in a single volume.

To the politeness of J. B. Steel, 60 Camp street, we are indebted for the part before us. J. S. C.

Part Fourth.

MISCELLANEOUS MEDICAL INTELLIGENCE.

1—*Proceedings of the Fifth Meeting of the American Medical Association—Held at Richmond, Va., May 4th*, 1852.

Through the extreme courtesy of Dr. Gooch, Editor of the Stethoscope, we have been put in possession of the proceedings of the *National Medical Association*, recently convened at Richmond, Va. The following is the list of Delegates who were present and took their seats as such:

From Maine 2; New Hampshire 1; Massachusetts 17; Rhode Island 6; Connecticut 9; New York 28; New Jersey 8; Pennsylvania 33; Delaware 3; Maryland 10; Virginia 90; North Carolina 5; South Carolina 13; Georgia 4; Alabama 4; Louisiana 2; Tennessee 2; Kentucky 8; Ohio 10; Michigan 1; Illinois 3; Missouri 6; Iowa 1; District of Columbia 6; U. S. N. 1; Foreign 2—275.

After which the nominating committees previously appointed designated the following as officers of the Association for the ensuing year:

For President—Beverley R. Wellford, of Virginia.

For Vice Presidents—Jonathan Knight of Conn; James W. Thompson of Delaware; Thomas Y. Simons of South Carolina; and Charles A. Pope of Missouri.

For Treasurer—Dr. Francis Condie of Pennsylvania.

A resolution was adopted, granting the "American Medical Society in Paris" the right to be represented in the Association.

The committee on Prize Essays awarded the prize to Dr. Austin Flint of Buffalo, for his essay "*On variations of pitch in Percussion and Respiratory Sounds, and their application to Physical Diagnosis.* This Essay will be published in the next volume of the Transactions, when we shall have the pleasure of reading it. We congratulate Dr. Flint on his success in this conflict of mind with mind.

Dr. N. Pinckney, of the U. S. Navy, read a memorial to the Association, which he had prepared to present to Congress, on the subject of assimilated rank. After the reading was over, a series of resolutions were unanimously

adopted, endorsing the views of Dr. Pinckney, and urging upon Congress and the Heads of Departments the claims of the *medical corps* to promotion in the Navy.

A committee was appointed to transmit the resolutions with the memorial of Surgeon Pinckney, to the presiding officers of both Houses of Congress.

Dr. Simons of South Carolina offered the following important preamble and resolutions, which were adopted:

The accumulation of passengers who are emigrants, crowded in ships coming to our shores from foreign ports, having in a great many instances numerous cases of aggravated fever, many of which prove fatal, and likewise producing similar results at the lazarettoes, and even cities; the number, likewise, of sick arriving from California, and some of the South American ports, and the fact that none of these vessels are required by law to have physicians or surgeons on board, seem worthy of our attention as conservators of health, and as an act of humanity and duty on the part of the American Medical Association, to bring these facts respectfully to the consideration of Congress, and to request its legislation thereon:

Be it therefore resolved, That the American Medical Association do memorialize Congress to require all vessels carrying steerage passengers on the sea to have a surgeon on board.

Resolved further, That a committee of this Association be formed to draw up a memorial to Congress, making such suggestions as it may deem fit as regards the importance of this measure.

The chair appointed the following committee to memorialize Congress on the subject matter embraced in the foregoing preamble and resolutions, viz: Drs. T. Y. Simons of S. C., Pope of Mo., Thompson of Del., Flint of Ky., and Mauran of R. I.

A resolution was adopted, repudiating the rights of colleges exclusively of Dentistry and Pharmacy, to send delegates to the Association.

A resolution was introduced by Dr. Corbin of Virginia, and adopted, accrediting one member from each State represented in the Association to travel in Europe, and to report upon foreign medical affairs to the Association.

Dr. J. M. Smith of New York, chairman of the committee on nominations, presented the following report, which, on motion of Dr. Corbin of Virginia, was adopted:

The committee of nominations, in fulfilling the duty of their appointment, propose to continue most of the special committees appointed by the Association in May, 1851, and to appoint several new special committees; they therefore submit the following list of chairmen of special committees, with the subjects which have been committed to them:

1. Dr. D. F. Condie of Philadelphia: On the Causes of Tubercular Disease.
2. Dr. James Jones of New Orleans: On the mutual relations of Yellow and Bilious Remittent Fever.
3. Dr. R. S. Holmes of St. Louis: On Epidemic Erysipelas.
4. Dr. C. D. Meigs of Philadelphia: On acute and chronic disease of the Neck of the Uterus.
5. Dr. J. P. Jervey of Charleston: On Dengue.
6. Dr. Daniel Drake of Cincinnati: On Milk Sickness, so called.
7. Dr. A. Lopez of Mobile: On the prevalence of Idiopathic Tetanus.
8. Dr. G. B. Wood of Philadelphia: On diseases of the Parasitic Organs.
9. Dr. R. D. Arnold of Savannah: On the physiological peculiarities and diseases of Negroes.
10. Dr. Joseph Carson of Philadelphia: On the Alkaloids which may be substituted for Quinia.

11. Dr. S. D. Gross of Louisville: On the results of surgical operations for the relief of malignant diseases.

12. Dr. James R. Wood of New York: On statistics of the operation for the removal of Stone in the Bladder.

13. Dr. Alexander H. Stevens of New York: On sanitary principles applied to the construction of dwellings.

14. Dr. F. Peyre Porcher of Charleston: On toxicological and medicinal properties of our Cryptogamic Plants.

15. Dr. G. Emerson of Philadelphia: On agency of the refrigeration produced through upward radiation of heat as an exciting cause of disease.

16. Dr. Henry J. Bigelow of Boston: On the best means of making pressure in reducible Hernia.

17. Dr. A. T. B. Merritt of Richmond: On Cholera and its relations to Congestive Fever; their analogy or identity.

18. Dr. Usher Parsons of Providence: On displacements of the Uterus.

19. Dr. F. H. Campbell of Augusta, Ga: On Typhoid Fever.

20. Dr. Worthington Hooker of Connecticut: On the Epidemics of New England and New York.

21. Dr. John L. Atlee of Lancaster, Pa.: On the Epidemics of New Jersey, Pennsylvania, Delaware and Maryland.

22. Dr. Robert W. Haxall of Richmond, Va.: On the Epidemics of Virginia and North Carolina.

23. Dr. W. M. Boling of Montgomery, Ala: On the Epidemics of South Carolina, Georgia, Florida and Alabama.

24. Dr. Edward H. Barton of New Orleans: On the Epidemics of Louisiana, Mississippi, Texas and Arkansas.

25. Dr. W. L. Sutton, of Georgetown, Ky.: On the Epidemics of Tennessee and Kentucky.

26. Dr. Thomas Reyburn of St. Louis: On the Epidemics of Missouri, Illinois, Iowa, and Wisconsin.

27. Dr George Mendenhall of Cincinnati: On the Epidemics of Ohio, Indiana, and Michigan.

Committee on Volunteer Communications: Drs. Joseph M Smith, J. A. Swett, W. Parker, G. Buck and A. C. Post, of New York.

Before the Association adjourned, the following resolutions were adopted, viz:

1. *Resolved*, That the elegant, varied and generous hospitality which the Association has enjoyed during its present session, calls for its hearty and unanimous thanks, with the assurance that it can never forget an entertainment unrivalled even among the festivities of the "Old Dominion."

2. *Resolved*, That the thanks of the Association are hereby presented to the Medical Society of Virginia, to the medical profession and citizens of Richmond, to the trustees of the "United Presbyterian Church," to the managers of the Danville Railroad, and to the several public institutions of this city, for the hospitable care of these bodies to promote the comfort and amusement of the Association.

3. *Resolved*, That the Association returns its thanks in an especial manner to the committee of arrangements for the zeal, intelligence and good taste displayed in performing its numerous and important duties.

On motion, the Association adjourned to meet again in May next, in the city of New York. (*Ed.*)

NITRATE OF SILVER IN THE DIARRHŒA OF CHILDREN.

Dr. Cenas reports in the June No. 1852. of the *New Orleans Medical Register*, several cases of obstinate diarrhœa in children, for which he prescribed the crystalized nitrate of silver, with almost immediate beneficial effects. In the course of 24 hours the discharges ceased to be so frequent, and assumed a much more healthy appearance. The cases he names were undoubtedly obstinate,but all speedily yielded to the efficacy of the medicine. He gave (we quote from memory) one grain of the crystalized nitrate of silver in one ounce and a half of mucilage gum Arabic ; of this the little patient took teaspoonful doses every four to six hours, according to the frequency of the discharges and the intensity of suffering. He gave it by the mouth only ; it was not employed by injection. (*Ed.*)

II.—*On Abortion and Transfusion of Blood.*

BY DR. ROUANET.

Translated from L'Union Medicale de la Louisiane.

I received lately, at one o'clock in the morning, a visit from a fellow-practitioner, who was very uneasy about the condition of one of his patients. Having been confined about the middle of her pregnancy, the midwife who attended her had been unable to deliver her entirely of the placenta. The portion of the placenta which remained in the womb, caused during the last four days the loss of so great an amount of blood, as to threaten seriously the life of the patient. All the means usually resorted to in such cases having failed, the practitioner had resolved to resort to transfusion of blood, which has been practised for some time in Europe. It was with this disposition of mind that he came in the middle of the night to demand my assistance. Whilst we were making the required preparations, I related to him the following case.

Called one day to a house in the Rue Vieille du Temple, in Paris, I saw before me a woman, by profession a fruit-seller, who was dying of hemorrhage, in consequence of an abortion which took place about the sixth week of her pregnancy. Two physicians had been called before me to treat her, and had considered her case so desperate, that from prudential motives they thought proper not to interfere. The least interference, they thought, would precipitate a fatal termination, and cause the patient to expire in their hands. What is there to do, in truth, when the breathing of a patient is barely perceptible, the pulse hardly to be felt, the skin pale and cold? What may he dare when death seems so imminent? But nevertheless, what risk then in trying some expedient? This last consideration emboldened me; I attempted to deliver the woman. Difficulties unforeseen came near defeating my efforts. The womb, very slightly developed, and very moveable, yielded in spite of my pressure on the hypogastrium, to the movement of the finger, introduced into the cavity of the organ, while it sought to detach the placenta, which was strongly adherent. After painful effort I despaired of success, when the idea occurred to me to seize the placenta by means of a pair of polypus forceps of a suitable length. The fore part of the instrument, deprived of its teeth by a file, was glided by its flat surface on the palm or aspect of the right index finger, the third phalanx

of which was in the womb. Arrived there, the instrument described a quarter turn on its axis, which permitted its being opened vertically on the pulp of the finger; then it was closed on the placenta, which it seized and held, whilst the finger detached it from the internal surface of the organ. When the operation was over the blood ceased to flow, the patient gradually recovered from the shock her strength had received, and afterwards got perfectly well. The same forceps have served me a great many times since under similar circumstances, excepting that the cases were not so severe.

The practitioner begged me to bring them with me, and we went to see his patient, who seemed to be suffering a great deal. The plugs previously introduced having been removed and the clots taken away, I proceeded to the application of the forceps, and at the end of a few minutes the placenta was removed and all danger had entirely passed.

"This is much better than transfusion," said my friend.

There is no doubt that transfusion is useful under certain circumstances. It is the abuse of it which should be prevented. Anterior to the delivery of the placenta, transfusion appears to me generally but little reliable—dangerous even for certain physicians, in whom it might inspire a fatal confidence. We should except those cases where the removal of it might be really impracticable. When the uterus, completely emptied, ceases to furnish blood, it is rare, I believe, for the patient not to return spontaneously to health, as in the case of the fruit-seller. If it should turn out otherwise, transfusion would be perfectly indicated.

I learned some days since only from a fellow-practitioner, who has made researches into the history of instruments, that the method which I used had been employed by Levret. When we consider the frequent and serious dangers to which premature delivery gives rise, we are at a loss to understand how this powerful ally in overcoming them is not of more general use in the practice of midwifery. The forceps "à faux germe" of Levret only differs from the polypus forceps in the wideness of its jaws—an advantage which is very questionable, in my opinion. Besides, both instruments are straight, which is, under certain circumstances, an inconvenience. It is my intention to do away with it in a special instrument which I intend to have made, the branches of which may be introduced separately, after the fashion of midwifery forceps.

III.—*Remarkable Case of Abstinence.*

Abstinence is most frequently the concomitant and consequence of melancholia. It is a means of extinguishing life. To those who dread suffering and struggles, it holds out the hope of a slow and painless death. To others, the fear of death suggests the same course. They prefer inanition to arsenic. They defeat and glory in defeating, the machinations and malice of enemies, and by self-inflicted misery and suffering. Of the patients admitted, eleven have taken food reluctantly, and in insufficient quantity, have refused all nourishment, or have been fed. Seven were females; four males. In six of these this resolution could be distinctly traced to melancholia; in one to disease of the stomach, and in the others to delusion. Of the latter, one was commanded by the Admiralty to starve; a second could not swallow from repletion; a third seemed to doubt the reality of the viands presented; and a fourth was prevented by the peculiar structure of the abdomen.

A very instructive example of this symptom of mental obliquity was alluded to in the last report, and is still under treatment. This lady conceives that the ordinary diet of the establishment consists of human remains, pounded and prepared in a huge instrument, which she calls a murder machine, which daily immolates victims, and yields hideous repasts to those who remain. She obstinately declines to participate in this cannibalism, and has not swallowed food since the 13th October, 1849. At first she was fed with great difficulty, and in defiance of the most strenuous and determined opposition, by means of the naso-œsophageal tube; but latterly her resistance has been less violent, although her purpose is as inflexible as ever. She must be carried to the spot where her meals are administered, but having thus demonstrated her consistency, she sometimes assists in holding the dish which contains the food about to be introduced forcibly into her stomach. By an enlargement and modification of the ordinary stomach pump, semi-solid food has long been given, and with the exception of those steps in the process of digestion which depend on mastication, the requirements of nature are closely imitated. The result has been most satisfactory.

When artificial support became indispensable, the patient was emaciated, debilitated and haggard. She is now blooming and robust. As the case is singular, if not unique, a list of the articles of diet is quoted, and the quantities given at different times.

On the 6th March she was adequately supported by the following allowance —Brown soup 12 ounces; bread 4 ounces; milk 14 ounces; arrow-root 2 ounces; eggs 2; cod liver oil 1 ounce. On the 19th October her diet consisted of bread or rice 1 lb.; mince meat 16 ounces; soup 20 ounces; tea 12 ounces; milk 3 ounces; ale 1 ounce; cod liver oil 1 ounce.

At various times the articles have been varied in the following manner— 1. Arrow root with eggs and milk; 2. Hare soup and grated meat; 3. Kidney soup with grated meat; 4. Grated cheese with soups; 5. Minced meat, soups, and bread; 6. Rice and milk; 7. Pea soup and bread; 8. Tea, and bread soaked; 9. Coffee and bread soaked; 10. Sago, eggs and milk; 11. Brown soup and bread; 12 Calves' foot jelly and bread; 13. Brown soup and grated carrots or beet root; ale or lemonade being given as drink with these. In this catalogue will be found cod liver oil. It was added partly from the apprehension that the patient might become phthisical, partly in the expectation that it might perform the same service in the cachetic state which imperfect nourishment creates, and which precedes phthisis, which it does when the disease is established.

(*Reports British Lunatic Asylums.*)

IV.—*Chloroform applied Locally in Fractures and Dislocations.*

BY N. H. HURLBUT, M. D.

I would call the attention of the profession to the local application of chloroform to remove pain and induce insensibility of parts to be operated upon. I have made use of it for two years past as a local remedy with the most happy results. In cases of comminuted fractures, producing, as it does, insensibility and relaxation of parts, it enables the surgeon to overcome the resistance of muscles, and to reduce fractures without pain or suffering to the patient. In

dislocations, I have no doubt its local application would be attended with the same happy results. I have used it in a similar manner in folons, neuralgia, etc. The best mode of application, I think, is to saturate a cloth with it, apply immediately, and over that a piece of oil silk, to prevent evaporation, allowing it to remain some four or five minutes, which will be sufficient. A second application may be necessary in fractures of the superior third of the femor, or in dislocation of the same bone.

The frequent deaths reported from the inhalation of chloroform, has induced me to call attention to its local use. If in the hands of others it shall prove as safe and efficient a remedy as it has in mine, I shall be amply rewarded.

Chicago, April 5, 1852.

(*North-western Med. and Surg. Jour.*)

V.—*Pressure upon the Abdominal Aorta in Uterine Hemorrhage—its success.*

Prof. Howard,—who, by the bye, has distinguished himself by his surgical feats,—reports in the May No. of the *Ohio Medical Journal* the following very instructive case:

On the night of the 7th inst. Mrs. L. was taken in labor. At eight o'clock on the following morning I found it progressing naturally, with a vertex presentation, os uteri dilating. At eleven o'clock she was safely delivered of a fine daughter. The uterus speedily contracted, accompanied with considerable pain. In about 20 minutes I found the placenta in the vagina. On removing it, a gush of blood occurred which startled me. In a few moments she remarked that she could not see, and the next, said she was very faint, and began to gasp for breath. In a moment my hand was upon the hypogastrium, where I found the uterus under the influence of pressure and friction, occasionally making efforts at contraction; but relaxation of its walls prevailed, and I could *hear* the blood flow from the vagina. The woman was evidently dying from uterine hemorrhage, and what was to be done? Should I apply pressure, friction and cold to the hypogastrium? I had done this without any substantial effect. Should I give ergot, opium, sugar of lead? There was no time certainly for these to act. Should I, according to the teachings of my honored preceptor and late colleague, Prof. Childs, apply the *tampon*, for the purpose of kindling up a "harmony of function," by "establishing the necessary relations between the uterus and its contents?" The loss of half a pint more of the vital fluid would insure death to my patient, already in *articulo mortis*. The womb, now completely relaxed, would receive half a gallon of blood before it would "cry enough." This measure was out of the question, At this critical moment, the thought of pressure upon the abdominal aorta, first suggested by a writer in one of the cotemporaries of this Journal, whose name I have not time to ascertain, entered my mind. The pressure was applied with my fingers almost as soon as thought of, and I could succeed with perfect ease in completely arresting the flow of blood through this large vessel to the lower half of the body. The pulsation in this artery was a mere wave, which was barely perceptible. In an instant after the pressure was applied flooding ceased; and in three minutes I could see a decided change in the appearance of my patient. The cadaveric countenance began to disappear, and the color appeared, though slightly, in her lips. Though delirious and half convulsed,

from want of blood in the brain, in ten minutes her consciousness returned, and in half an hour, reaction, yet feeble, was established. The uterus now contracted upon its contents, and good sound "after pains," in the course of an hour, insured the safety of my patient.

In my own mind, I have no doubt that pressure upon the aorta was instrumental in rescuing Mrs. L. from the grave. It seems to me nothing else could have saved her; as there was no power in the uterus of itself to contract, and thus to close the open mouths of its bleeding vessels. She would have as certainly bled to death as if there had been an opening through the walls of the heart!

VI.—*Wound of Abdomen and Intestines.*

BY ISRAEL A. COONS, M. D., OF DAYTON, O.

About the middle of last November, in consultation with Drs. Treon, Weaver, and Legg, I saw Mr. ———, of this county, aged about 40, occupation, landlord, of temperate habits, who had been stabbed, about five hours before my arrival, with a common pocket-knife, in the superior and internal portion of the right iliac region. On examination, we found a perpendicular wound in the parieties of the abdomen, and the intestines and the omentum protruding to the size of a man's double fist. The protruding portion of the ilium was wounded in two places; in one the coats were not all perforated; the other was, in a longitudinal direction, and in extent about half an inch, allowing the free escape of the contents of the bowels. On an effort being made it was found impossible to reduce the protruding intestine without enlarging the external opening in the abdomen, which was done in an upward direction and the intestine reduced, after properly closing the cut in the ilium, by Glover's suture, and cutting the ligature short off.

Two stitches were taken in the external wound, adhesive compress, and rollers applied. The patient was placed in bed, and nothing but the simplest fluid diet allowed. Opiates were given to allay pain and quiet the intestines. Slight reaction came on the next day, with some pain and tympanitis, which were readily subdued by mild doses of Dover powder, and an injection to move the lower bowels. In about three weeks the patient was doing well; was allowed to be up, and at the end of six weeks the wound was nearly healed.

(*Ohio Med. and Surg. Jour.*)

VII.—*Of the Sale of Poisons.*

In the May No. for 1852 of our excellent cotemporary, the *Ohio Medical Journal*, we find the following law in regard to the sale of poisons, in full force in the State of Ohio. The public, it seems, is indebted to Dr. Vattier of Cincinnati, for this law; and we hope every State in the Union will follow the example of Ohio. In Louisiana no such law is *in force;* and in consequence, we are called upon almost weekly to report one or more deaths caused by taking some poisonous preparation. *Some* of our apothecaries will sell the most deadly poisons to servants and other irresponsible persons, without the prescrip-

tion of a Physician; now all this is wrong, and should be checked by the most stringent laws.

The following is the act regulating the sale of poisons in the State of Ohio:

Sec. 1. That it shall not hereafter be lawful for any apothecary, druggist, or other person, in this State, to sell or give away any article belonging to the class of medicines usually denominated poisons, except in compliance with the restrictions in this act.

Sect. 2. That every apothecary, druggist, or other person who shall sell or give way, except upon the prescription of a physician, any article or articles of medicine belonging to the class usually known as poisons, shall be required—

1st. To register in a book kept for that purpose, the name, age, sex and color of the person obtaining such poison.

2d. The quantity sold.

3d. The purpose for which it is required.

4th. The day and date on which it was obtained.

5th. The name and place of abode of the person for whom the article is intended.

6th. To carefully mark the word "poison" upon the label or wrapper of each package.

7th. To neither sell nor give away any article of poison, to minors of either sex.

Sec. 3. That no apothecary, druggist, or other person shall be permitted to sell or give away any quantity of arsenic less than one pound, without mixing either soot or indigo therewith, in the proportion of one ounce of soot or half an ounce of indigo to the pound of arsenic.

Sec. 4. That any persons offending against the provisions of this act shall be deemed guilty of a misdemeanor; and upon conviction thereof, shall be fined in any sum not less than twenty, nor more than two hundred dollars, at the discretion of any court of competent jurisdiction.

VIII—SELECTED ITEMS OF MICROSCOPIC OBSERVATION.

Being in explanation of thirty Lithographic Figures, relating to the structure of Blood.

BY J. L. RIDDELL, M. D.
Prof. Chemistry in Med. Dep. Univer. La.

(*Continued from the March Number of this Journal.*)

TAB. XI.

[*Magnified* 1000 *diameters.*]

Blood of the alligator, procured by Dr. Hale at the vivisection of an alligator, May 12th, by Dr. B. Dowler.

112, 113, 114. Natural appearance of the red corpuscles, floating in the serum; no internal structure being apparent.

TAB. XI

112

115

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From nature engr. on Stone by J.L.Riddell

TAB. XII

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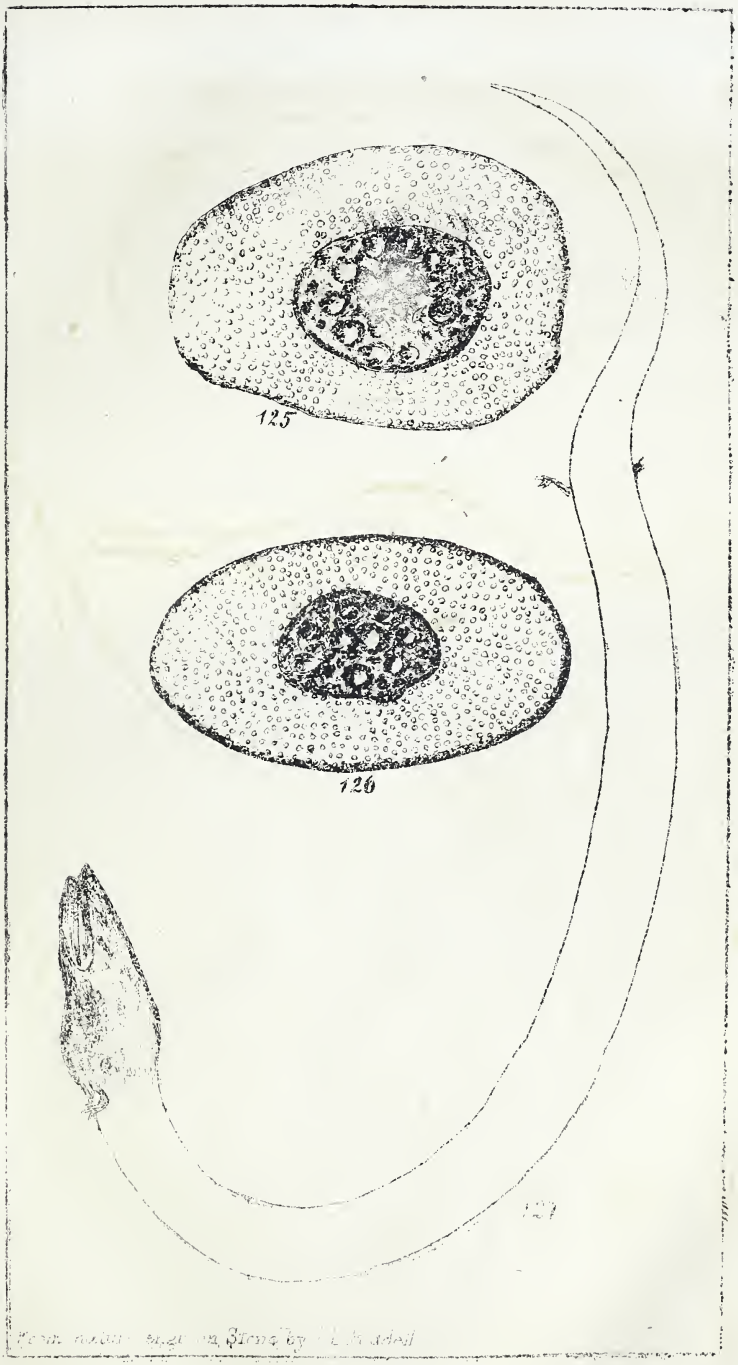
123

Ferm. Lotus ad viv. sic. Steel. del. et lith. Waddell

TAB XIII



TAB. XIV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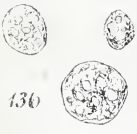
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139


141


140


142

From nature engr on Stone by J L Riddell

115. Red corpuscles seen edge-wise.

116, 117. Nuclei made apparent in the red corpuscles, by adding to the serum a solution of carbonate of soda. The pointed outline of No. 116 is not due to the reagent added; it is frequently witnessed in the normal blood.

118, 119. By bringing in contact with the blood a watery solution of bromine, weak tincture of iodine, or a solution of chloride of platinum, the membranous expanse of the red corpuscles exhibits a granulated appearance, as here shown. (*Pallium vesiculatum.* Vide 125, 126.)

120. White corpuscles floating in the serum; apt to be seen in groups, as they seem to manifest a segregative tendency.

TAB. XII.

[1000 *diameters.*]

Blood of the Amphiuma tridactylum, Cuv.

121. Natural appearance of red corpuscle, seen upon its broad surface; the nucleus apparent.

122. The red corpuscle seen edge-wise.

123. Red corpuscle with a pointed extremity. These, and others with both extremities pointed, are not unfrequent. More rarely these attenuated ends are symmetrically bulged out and rounded off.

Memorandum. It is not probable that larger blood corpuscles have ever been examined, than these of the Amphiuma, they frequently exceeding in length one two hundred and fiftieth part of an inch. The nearest approach on record, so far as I am aware, is the blood of the Siren, a batrachian reptile closely allied to the Amphiuma, in which the corpuscles are reported by Gulliver to be one four hundred and twentieth of an inch long. Owen, (Lectures Comp. Anat. II. p. 13) represents the corpuscles of the Siren blood to be one three hundreth of an inch long. The Amphiuma blood corpuscles are not only longer, but judging from the figures in Owen, and in Hassall's Micros. Anat., much broader in proportion, and therefore considerably larger. Their average size, cubically measured, is more than 1200 times as great as the corpuscles of human blood.

124. White corpuscles of Amphiuma blood.

TAB. XIII.

[1000 *diameters.*]

Blood of the Amphiuma tridactylum, Cuv.

125, 126. Appearance of the red corpuscle after adding to the blood a solution of common salt, and subsequently adding acetic acid, according to the valuable plan of Prof. James Jones. Other methods of chemical treatment (118, 119) bring out similar appearances, but not always with the same distinctness. We here have 1st, a composite cell, strictly analogous to other animal and algoid cells; namely, the *nucleus*, containing numerous nucleoli, which in turn are visibly filled with nucleolar and granular contents; 2d, the *vesiculate mantle*, *pallium vesiculatum*, or specific peculiarity of a red corpuscle, containing in its texture a great multitude of minute spherical vesicles of

similar size; being the site of the red color of the blood, and the substance which probably serves as an oxygen bearer, from the lungs to the capillary tissues.

127. Rough outline of the Amphiuma tridactylum, Cuv., a Batrachian reptile, common in the muddy swamps of the Louisiana Delta, often seen four or five feet long, and almost black in color. The negroes about New Orleans call it the Congo snake.

TAB. XIV.

[1000 *diameters.*]

128, 129. Natural appearance of the red blood of the tree frog. (*Hyla arborea*, Lau.)

130. White corpuscles in the blood of the tree frog.

131. Red blood corpuscle of the tree frog, treated with salt and vinegar (125, 126), so as to make apparent the *pallium vesiculatum*, which here, from the minuteness of the vesicles, has merely a well marked granular aspect.

132, 133, 134. Red corpuscles of the blood of the large green edible sea turtle. Natural appearance. [*Note.* This sample of turtle blood was handed me by Dr. Samuel A. Cartwright, who informed me it was from the Chelone midas.]

135. The *pallium vesiculatum* (125, 126) made apparent in the red corpuscle of turtle blood.

136. White corpuscles in the turtle blood.

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137. Red corpuscles of human blood, as seen when just drawn; lenticular, apparently structureless discs.

138. The same with the margin slightly crenulated, an appearance due to to a slight contraction of the *pallium* (125) upon the nucleolar contents. This appearance ensues spontaneously, and is probably due to exosmosis.

139. White corpuscles of human blood.

140. Red corpuscles of human blood, seen edge-wise, and packed together like piles of coins—a spontaneous and almost constant occurrence, when no agent has been mixed with the blood.

141. The stellated or mulberry form of the red corpuscles of human blood, occurring spontaneously when the serum has been somewhat concentrated by evaporation. Here the *pallium* has so contracted, as to adapt itself to every protuberance and sinuosity of the nucleus, (vide 125) making the several *nucleoli* (a dozen or so) very apparent.

142. By treating human blood with weak tincture of iodine, or with bromine, or with salt and afterwards vinegar, the *pallium vesiculatum* (125) as here shown, is made apparent, presenting fine uniform granulations. Under this treatment the nucleoli (141) not here represented, can also be distinctly seen, without the contraction of the pallium, as in 141.

STRUCTURE OF RED CORPUSCLES OF BLOOD.

The conclusions which seem deducible from the foregoing, respecting the structure of red corpuscles of blood, may be summed up and set down as follows:

1st. All red blood corpuscles, whose function it is to absorb oxygen for the use of the animal system, whatever their diversities of size, shape and appearance, in different animals, possess a similar, or at least an analogous structure.

2d. They all have a *nucleus*, or internal composite cell, similar in appearance to other animal cells, and similar to algoid cells; consisting of associated smaller cells or *nucleoli*, held in an appropriate common envelope; and these smaller cells or nucleoli, containing again others still smaller.

3d. Around the whole nucleus is wrapped the distinctive tissue of the red corpuscle, the *pallium vesiculatum*. In this is found the red coloring matter. The function of this tissue is to absorb oxygen in respiration for the use of the system. In its structure are multitudes of exceedingly minute spherical vesicles of nearly uniform size. In the blood of man, etc., this pallium fits closely upon the nucleus; while in the blood of the Amphiuma, etc., the pallium forms a broad margin around the nucleus.

SPENCER'S OBJECTIVES FOR MICROSCOPES.

The pre-eminent success of Charles A. Spencer, residing in Canastota, Madison county, New York, in manufacturing objectives for microscopes, deserves a notice in this place. It is now fairly conceded that Spencer, though an American, has considerably excelled the best English and European opticians in this most difficult department of practical optics. The American Association for the Advancement of Science have given him this award, and English microscopists have borne testimony to the same effect.

The preceding observations were made with a glass of exquisite workmanship, one of Spencer's latest and best productions. I gave him an order for the finest objective of high power which he could make, expressly without limit as to price. He sent me the instrument (the essential parts of which, the smallest thimble would contain) in May, 1852, writing me at the same time that it was the best he had ever made, and charging me for it, what I consider a most moderate sum, $120; for its defining power is so great and so wonderfully accurate, that a sum of money greater than I choose to name, would not deprive me of its possession. It is rated by Spencer as 1-16th of an inch focus, though the available working focal distance is probably less than 1-200th of an inch, requiring the very thinnest of Chance's thin glass, for covering objects to be seen. Its angle of aperture is full 174° !—a figure at least 40 units beyond what the best European opticians have, until quite lately, considered practicable. Upon this, as well as upon the general perfection of workmanship, its great excellence depends. That most difficult test object, the Grammatophora subtilissima, of Bailey, is, by this glass, readily and clearly resolved into black beaded lines.

IX.—*The right spirit—The South waking up—Prevalence of Typhoid Fever in the country, etc., etc.*

—

Prattville, (Ala.) June 1st, 1852.

A Hester, M. D.

Dear Sir—I have been a reader and subscriber to your valuable Journal for the last four years, and I must say that I always hail with pleasure the time of its arrival. I am truly glad the South is beginning to put forth her strength to think and act for herself, and to show to the world, that while her resources are developing she can exist independent of Europe or the North. I am proud, sir, that we have now men in the South, and correspondents of, and contributors to, the Journal, too, that are eminent as medical men throughout the world. I hope that we will continue to be awake to our interest, and that our march will still be onward.

Prattville, the site of my location, is a manufacturing village, with a population of about one thousand, situated on Antauga creek, four miles from the Alabama river, and fourteen from Montgomery.

Some fifteen years since the present site of Prattville was a perfect swamp, about one mile North and South, and two miles East and West, until we come to the Pine. The water is impregnated with iron and sulphur. The present founder of the village, Mr. Daniel Pratt, has carried on a system of drainage for the last five or six years that has made our village comparatively a dry one. Some four years since we were scourged severely with Typhoid Fever from June until September, since which time we have had comparatively few cases; although through the summer and fall almost every disease is apt to assume the typhoid type.

We have in the winter, as you would naturally suppose, from our situation, Catarrhs, Pneumonia, Pleurisy, etc., and in the spring Diarrhœa and Dysentery. We are just passing through an epidemic of Measles, the sequelæ of which has proved disastrous in many parts of the country. We have in this location escaped well, considering the material we have to operate on. The majority of the families among the factory operatives, when they first come, are certainly the worst looking chances to live I ever saw; they look as if they had been half starved, half clothed, and fed on dirt and snuff all their lives; the majority of them are guilty of the filthy habit of dipping snuff; and broken down constitutions to commence with. With all of these things operating against us, we have only some four or five deaths out of about three hundred cases. In a great many cases it has appeared almost impossible to control the bowels; in some cases the operations were very frequent, large and watery; the secretions appear locked up; and calomel, even in the minutest dose, appears only to augment and increase the discharge. The only thing I have been enabled to control it with is Opium and Acetas Plumbi.;

with injections of starch and laudanum; in other cases the discharges are on the dysenteric order; in such I have used hot fomentations, cloths wrung out of hot vinegar to the bowels, with good effect; Opium and Camphor, Brandy, etc.

H. C. HILLHOUSE, M. D.

X.—[ADDENDUM

To Dr. Dowler's "Contributions," &c.; to follow page 72 of this Journal.]

To refuse to publish facts because they will not be believed, was regarded by Dr. Samuel Johnson as downright meanness and cowardice. The facts related concerning the vivisection No. 1, upon the 6th of May, indicate results, (as clearly as experiments can do) which were as unexpected to me as they can be to any person whatsoever. But I relate facts only, regardless of their agreement or disagreement with received theories—regardless of my inability to explain them so as to form a system. The honest upbraidings and *naive* chidings of some of my correspondents, tend, in some degree, to make me think that possibly I may deserve the compliment, though intended as a censure, conveyed in the following passage in a recent letter from a friend: "I never could find what doctrine you want to establish—whether any or not." I certainly never expected to establish the doctrine that an eviscerated animal, having the spinal cord divided in the cervical and dorsal regions, and having, also, the nerves cut away from all its limbs, would still continue to manifest both sensation and voluntary motion! In former experiments, I had, with one or two exceptions noticed, that although mere sections of the cord did not destroy these fundamental functions, yet complete longitudinal destruction of that structure extinguished these phenomena almost instantly. The closing experiments in No. 1, consisted of this complete but gradual destruction of the cord, which the animal was fully aware of, following, as it did with its feet, the parts disentegrated! Now, although it is unwarrantable to assume anatomical structures in order to establish a doctrine upon a sure foundation, such provisional assumptions are sometimes allowable as hypotheses, several of which I suggest as possible explanations of the above mentioned experiments. Taking for granted, as proved by decapitation, that sensation can exist independently of the brain;* taking for granted that the sensorium is diffused, nay,

* Sensation is no more the property of a special spot in the centre exclusively, than vitality is. Parts of the human body, as noses, ears, fingers, and so on, after having been separated from the general system for hours, have retained an independent vitality and been re-united; while, in other cases, particularly in Oriental countries, surgeons have restored lost parts in one person by taking parts from another.

even intensified in the periphery; admitting, provisionally, that the muscles are wholly devoid of sensation, still the spinal cord, though divided into segments, appears essential to sensation and self-determined motion. How then can these several spinal segments be connected with the periphery, in the absence of the great nervous trunks which go to the limbs? If we suppose the existence of anastomosing interlacements along the sides of the animal, originating with or implanted on the spinal nerves, and, perhaps, connected also with the great sympathetic system, here will be a communication of a very general character, though not visible to the naked eye. It is easy to decapitate; but it is not possible, in the short period to which a vivisection must be restricted, to remove all the ganglions, plexuses, and branches of the sympathetic system—a system that morbid action and vivisection prove to be endowed with sensation—a system, in which each ganglion is regarded by Bichat and most other physiologists as being a distinct centre. Hence, from the inextricable meshes of this system, as well as from the spinal, countless numbers of nerves may pervade the substance of the muscles and become instruments of sensation, notwithstanding the destruction of the great nerve trunks sent to the limbs. Small portions of these nerves in the intervertebral foramina and a short distance beyond, were not removed. Hence, some branches may pass off laterally that would not be included in the plexuses.

The experiments in No. I, differed in manner from, and extended beyond, former experiments, without contradicting them. But sciolists may exclaim—what has all this to do with human physiology? Are alligators like men? Not exactly. I have acknowledged the difference upon former occasions, perhaps to an unwarrantable extent.* I have a better right to the benefit of the objection than these gentlemen, because they profess to follow the celebrated Carpenter, Todd, Bowman, Hall, and others, who, in their latest and most elaborate works, insist that the cold-blooded animals are the most reliable ones for physiological experiments: Messrs. Todd and Bowman, in their most excellent work, now in the course of publication, namely, "Physiological Anatomy and Physiology of Man," say "*That the nervous force endures much longer in the cold-blooded animals*"—"*On this account the cold-blooded animals must be selected for exhibiting the phenomena*"—a proposition which Prof. Carpenter iterates and re-iterates, particularly in his learned work, "Physiology, General and Comparative," just republished in this country. Now, if dissent-

* A foreign critic, in 1847, who intended to do me all possible damage, speaks on this wise: "Can any one, we ask, entertain a doubt that, the conditions being the same, the consequences would be the same in man, with a spinal centre constructed upon essentially similar principles to that of reptiles and animals? If such kind of evidence be rejected, physiology must return to its very infancy, for, with few exceptions, little or nothing can be learnt, strange as it may sound to some ears, of human physiology from observations restricted exclusively to man." A Dutch Governor tried to please all, but finding that impossible, determined to hear only one side of every case, as he found that hearing both sides not only confused his mind, but gave the trouble of changing the first opinion and forming a new one!

ing gentlemen were more consistent in their objections, their logic would be none the worse for their philosophical reputation. If they can believe that European frogs and turtles illustrate human physiology, why should they reject the *Crocodilus Mississippiensis*, albeit, the wisest, biggest, and most perfect beast of the cold-blooded class, as the physiologists of the old world have the justice to acknowledge? Does the original curse against reptilians apply to the alligator only, so as to render it unfit for physiological experiments? It is evident that *it* was not the reptile which deceived Eve; for it does *not* "go upon its belly all the days of its life." It walks on four legs! The curse that clings to it is that of being a native American and not a European! Verily an Alligator "hath no honor in his own country,"* although anatomically and physiologically he combines to a greater extent than any other single animal the essential types characterizing the vertebrata and articulata, approaching birds and mammals on the one side, and rising above the fishes, worms and mollusks on the other. Can the resistance-men prove that crocodilian digestion, absorption, sanguification, nutrition, secretion, circulation, volition, motion, hearing, seeing and feeling, are altogether different in nature, not simply in degree, from those functions in man? Take the strongest example of contrast, namely, the tenacity of life in the saurian: because life persists longer in the latter than in the former, after extensive injuries, does it follow that the vital actions of the one are essentially different in nature as well as in degree from the other?

Can any unprejudiced and enlightened mind, upon a careful review of the above mentioned experiments, and many others which I have made and published, reconcile them with the following statements?—statements founded almost entirely upon Sir C. Bell's experiments—which experiments Bell said were but very few, and even these few he had no confidence in, as he emphatically declares! Todd and Bowman say: "The anterior root of each spinal nerve is motor—the posterior sensitive. The irritation of the latter gives rise to no muscular action. Comparative anatomy confirms this conclusion among all classes of vertebrate animals. The origin of a double root denotes a double function. The union of the encephalon with the spinal cord is necessary for voluntary motion and for sensation."

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* Have the anti-crocodilians forgot that the classical history of this Reptilian is most honorable? That it was the symbol or hieroglyphical representative of the mighty Typhon, the slayer of the famous god Osiris, who was the brother and husband of Isis, and father of the "ever living, resplendent Horus, the beneficent deity?" At the city of Crocodiles, Arsinoe, this sacred saurian was worshipped the most devoutly, whether living or dead, in the days of the Pharaohs.

XI.—AN ANALYTICAL REPORT OF THE MISS. STATE HOSPITAL,

FOR THE QUARTER ENDING 31st MARCH, 1852.

DISEASES.	Discharge in Jan.	Febr.	March.	TOTAL.
Acute Bronchitis,	1	0	0	1
Abscess,	0	0	1	1
Ascites,	0	0	1	1
Burns,	0	0	1	1
Contusions,	2	1	1	4
Diarrhœa,	1	2	2	5
Dysentery,	0	0	1	1
Debility,	3	1	2	6
Erysipelas,	0	0	2	2
Fever, Intermittent,	2	0	3	5
" Typhoid,	1	0	0	1
" Mixed,	1	2	4	7
Fracture, Clavicle,	1	0	0	1
" Humerus,	0	0	1	1
Inflammation, Gastric,	1	0	1	2
" Knee Joint,	0	1	0	1
Opthalmia,	0	0	1	1
Mania a Potu,	1	1	0	2
Pneumonia,	0	1	2	3
Syphilis,	1	1	3	5
Ulcer,	0	0	1	1
TOTAL	15	10	27	52
DIED OF				
Acute Bronchitis,	1	0	0	1
Burns,	0	1	0	1
Dropsy,	1	0	0	1
Diarrhœa,	1	0	0	1
Laryngitis,	0	0	0	1
Dysentery,	1	0	0	1
Pneumonia,	1	0	0	1
TOTAL	5	2	0	7

PLACE OF NATIVITY.

Ireland,	31
Germany,	4
England,	4
France,	1
Switzerland,	1
United States,	16

RECAPITULATION.

Remaining, Jan. 1st. 1852,	11
Admitted this quarter	57
Discharged	52
Died	7
Remaining, April 1st., 1852,	9

C. S. MAGOUN, M. D.,
Physician & Surgeon.

XII.—*On the Urinary Calculus.*

BY PROF. EVE.

The June No. for 1852 of the *Nashville Medical Journal,* reports a number (25) of interesting cases of Lithotomy performed by Prof. Eve of the University of that place. We have only space for the "*Recapitulation of the 25 Cases.*"

Sex.—23 were males and 2 females.

Race.—2 were black, 2 mulattoes, and 21 white.

Age.—16 were under thirteen years, 7 between twenty and thirty-five, 1 at sixty-five, and 1 at seventy-seven.

Operation.—Twenty-four were cut, twenty-three of which by the double lithome.

Result.—4 died after being operated upon, 3 of which from the operation, 2 indirectly, (supervention of erysipelas) and only one directly from it (supervention of erysipelas). The remaining 21 fully recovered. Of the 19 first operated upon, but one died; and in that instance death was not owing to lithotomy. 17 were well in two weeks after the bi-lateral operation. In no case have I heard of the reproduction of stone, nor has a fistula occurred in one.

Number of Calculi and their Chemical Constituents.—Single in twenty-two cases, 2 in one case, 3 in another, and 117 in another; total, 144 stones in twenty-five cases. Composition, chiefly some preparation of lime. There is not the usual proportion of uric acid formation. Of the five specimens obtained in Tennessee, each contained lime; thus confirming Professor Peters' analysis of the Dudlean collection of calculus at Lexington, Ky. It would seem from this collection that phosphate of lime is not as rare a composition of urinary concretions as is generally supposed.

My method of performing lithotomy is now submitted, but claiming for it nothing original.

It will be seen that decided preference is given to the bi-lateral operation of the late distinguished French surgeon, Dupuytren. I have found, that owing to the irregularity of the external surface operated upon, it was difficult to make the crescent-like shape, or the semi-circular incision, through the skin and soft parts. I now make the cut like a χ, with a short tail. The grooved staff previously introduced into the bladder, and the scrotum elevated by an assistant; a short incision is made directly upon the raphe of the perineum at the bulb of the urethra, and the direction changed at a very oblique angle at the end of about three quarters of an inch, to terminate at a point midway between the anus and left tuberosity of the ischium. With the edge of the knife now turned upwards, it is made to penetrate and commence the other leg of the χ at the point of the right side corresponding to the one just terminated upon the left. This incision is deepened as the instrument ascends, and arriving at the middle of the perineum with the edge turned directly upwards, the urethra is opened, and the groove of the staff exposed. This not only simplifies the external incision of lithotomy, but effectually guards against the liability to wound the rectum. The operation is then completed in the usual manner.

The suggestions made in the Southern Medical and Southern Journal, in 1849, in regard to the instruments, I expect to have carried out this summer while in Paris, and they may hereafter be presented to the profession.

Note.—Professor Eve is now in Europe, we believe, collecting a museum and obtaining the necessary materiel for illustrating the Lectures in the University of Nashville. (*Ed.*)

The New-Orleans Medical and Surgical Journal.

VOL. IX.] NEW-ORLEANS, JULY 1, 1852. [No. 1.

Until about the middle of May, the health of the city continued quite good; but at this time the list of deaths began sensibly to increase, as will appear from the annexed statement—

DEATHS IN THE CITY OF NEW ORLEANS

For the 9 weeks ending June 12th, 1852.

1852	*Cholera.*	*Fevers.*	*Total.*
April 17th,	00	20	142
" 24th,	04	6	123
May 1st,	00	04	137
" 8th,	9	10	138
" 15th,	17	12	161
" 22d,	36	8	171
" 29th,	178	11	342
June 5th,	179	26	342
" 12th,	129	22	299
Total,	552	119	1855

Of which number died under 10 years of age 718, and 248 colored.

From a glance at the figures above, we perceive that for the week ending May 15th, the deaths by Cholera counted seventeen, and from this date the deaths increased so rapidly, that at the end of the following week they numbered one hundred and seventy-eight! At about this point they remained stationary, both as regards Cholera and the totals, for about two weeks, when both the Cholera and the totals began rapidly to decline, and we have no doubt that when this reaches our subscribers, the disease will have nearly disappeared from the city.

Infection played no part this time in the propagation of this disease over the city; it sprang up at a time when the weather was not unusually hot for the season, and after we had reached the middle of a long dry season. During the prevalence of the disease, we had some heavy and refreshing showers; but the Cholera was neither checked nor aggravated thereby. Surely this is a disease *sui generis*—it is not amenable to any of the known laws which usually govern the development and course of epidemics; it breaks out in dry, and ceases not its ravages amid daily showers and the explosion of electricity. It must be either above, or it creates its own laws *de novo*, and as yet we remain ignorant of their nature. By some it was thought that fruit and vegetables, unusually abundant this season, proved the immediately exciting cause of the disease; but we are satisfied that this is not correct, not only because many have fallen victims to the disease who avoided most scrupulously fruits and vegetables of

every kind—but also because the disease is already rapidly declining, when our markets are loaded with fruits and vegetables of all descriptions, and much cheaper than earlier in the season. If he is happy who can know the cause of things, thrice happy would he be who could reveal the cause of Cholera, and thus perhaps place it in the power of man to shield himself from its ravages.

The disease, as recently witnessed, differed in some particulars from previous attacks—thus, the premonitory diarrhœa persisted longer before the stage of collapse supervened; the cramps were less frequent, although quite obstinate in some subjects. In one particular we found but little difference, namely, the fatal tendency of the disease after the patient reached the collapsed stage. The violent cramps may be promptly relieved and kept subdued by the inhalation of Chloroform. Frictions with pounded ice have aided in bringing about reaction in some apparently hopeless cases; but it is difficult to say whether nature or the remedy saves such patients. Let us, however, do our duty in such cases, and trust the issue to God.

At the time of going to press, the health of the city is rapidly improving, and we confidently anticipate entire exemption from the disease in a few weeks.

CORONER'S INQUEST.

The loose and too often careless manner in which inquests have been held in this city, has frequently excited remark, and occasionally provoked the ridicule of some of our daily prints. Whilst, by consolidation, we have sought to reform many abuses, and to curtail the expenses of the city government, we are not a little surprised that those who advocate economy and a faithful performance of official duty, have not turned their eyes to the enormous profits accruing from Coroner's Inquest. We beg to state, *in limine*, that we deprecate any intention to reflect upon the integrity and motives of the present incumbent; that functionary but travels in the footsteps of those who have preceded him for years, and performs the duties of the office with equal ability and punctuality.

The fees of the Coroner are too high, and it is generally believed that Inquests are often held in cases where the necessity for an inquisition does not exist. For this we do not undertake to censure our highly respectable Coroner; the fees are fixed by law, and like most of us, he charges all that the law allows. The Chief Justice of the Supreme Court receives about one half the pay that accrues from Coroner's Inquest in this city. To discharge the high and responsible duties of the first station, the highest legal attainments are requisite; whereas, the people seem to think any ordinary individual of respectable standing is competent to act as Coroner. Now we maintain, with many others, that a medical man is alone competent to perform the duties of Coroner; indeed, in all the large cities, both of this country and Europe, none other than a Physician of attainments is ever put forward for this office.

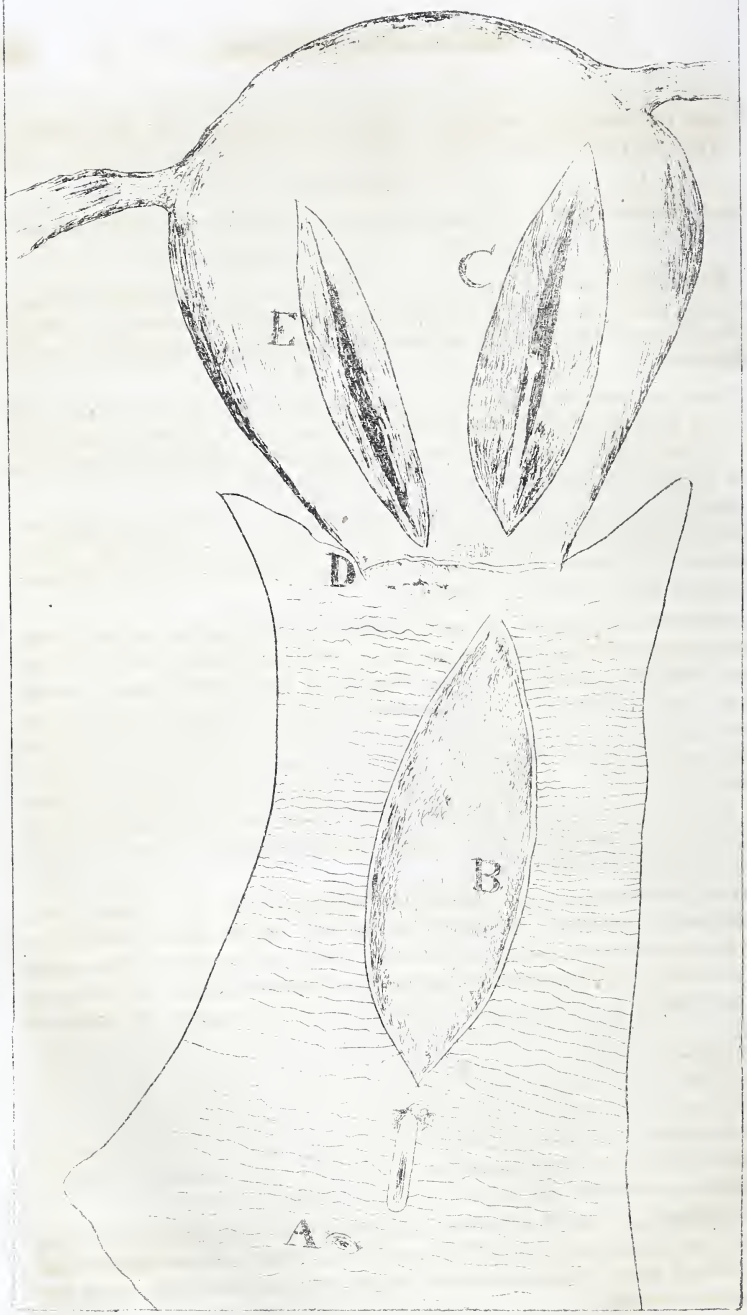
To restrict Coroner's Inquests to their legitimate subjects, a fixed salary—a stipulated sum should be paid over to that functionary, and that too without regard to the number that may be held in a given time. In the late proceedings of our City Council, we saw it stated that our Coroner had received for Inquests for a single month *seven hundred and fifty dollars.* This would amount to the handsome sum of about nine thousand dollars per annum; a pretty snug job for a hasty inspection of those who die by violence, by drowning, etc. We venture to assert that there are in this city a number of well-qualified medical men, any one of whom would cheerfully undertake to perform the duties of Coroner for the entire city for $2000 or $2500 per annum. Let our citizens look into this matter, and in the meantime we shall have more to say on the subject.

UNIVERSITY OF LOUISIANA—MEDICAL DEPARTMENT.

We direct attention to the circular of the Medical Department of the University of Louisiana, to be found at the close of this number. The Dean of the Faculty, Prof. Hunt, has set forth the advantages of this city for the acquisition of a practical medical education in their true light; and we therefore refer the student to his circular. We really believe that no city of the Union presents superior advantages to that of New Orleans for the thorough education of the medical student. The great Charity Hospital, into which are admitted annually from *eighteen to twenty thousand patients*, is thrown open to the faculty and the students, during the course of lectures; and if those who walk the wards of this institution do not make themselves familiar with disease, it is not for want of the necessary facilities. Read the circular and judge for yourself.

MEMPHIS MEDICAL COLLEGE.

Memphis is a growing city, and the citizens of that town have resolved to build up a medical school equal to any in the great West. They have already completed a fine building—endowed and put into operation a commodious Hospital—organized a full Faculty of Medicine—and during the last season received over one hundred and twenty-five students. It is an accessible point at all seasons of the year; and from its locality and the talents of the Professors, we predict a prosperous career to this new school of medicine. For particulars, we refer to the advertisement of the Dean, Dr. Shanks, in the commercial department of the Journal.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CASE OF DOUBLE UTERUS WITH OCCLUSION OF ONE SIDE—THE PATHOLOGICAL RESULTS IT GAVE RISE TO—DEATH AND POST MORTEM.

By D. Macgibbon, M. D., *Visiting Physician to the N. Orleans Charity Hospital.*

(Accompanied with a Lithographic View.)

The following case of congenital malformation of the Uterus is sufficiently interesting to be placed on record. It occurred in the person of the young woman, a clinical history of whose case I gave in the New Orleans Medical and Surgical Journal of March last

Since that report was written, the woman has again been under my care in the Charity Hospital, where she died on the 9th of May; and if the previous history of her disease interested me, the real condition of the parts implicated disclosed at the post mortem, serves to enhance that interest in no slight degree.

But before giving the results of that examination, let me here briefly recapitulate some of the more prominent points in the history referred to, and which are deemed necessary to the better understanding of the case; as well as to add a few more, which will bring that down to its close.

Johanna M., a servant girl and unmarried, was in the enjoyment of good health until a short time subsequent to the pubertatic epoch, which established itself at the usual period, when she noticed a large tumor in the vagina, which projected somewhat. Its formation had not been accompanied with any painful feeling: its only annoyance being a sense of dragging in the lower part of the belly, when she moved about; and a feeling of fulness there, as well as in the vagina. After the appearance of this tumor, the menses, which had been regular, ceased, and remained away six months, when they again returned: with that the above annoyances were increased; and shooting pains followed, which became ultimately so severe as to force her to the Hospital for relief.

It will be recollected that she entered that institution on the 17th of June, 1851, nearly twelve months after the tumour first appeared. At this time it presented itself to view between the labiæ, and was found to have the anterior wall of the vagina for its covering; it fluctuated, and was tapped, giving exit to about a pint and a half of dark, ropy fluid. Besides this, on entrance, as will be seen from the published report, "in the uterine region, a *ridge-shaped* tumor could be readily felt, through the abdominal parieties, extending from the symphysis pubis upwards, to within two inches of the umbilicus; and in the left iliac fossa a large irregular tumor could be felt in the same way; this, seemingly, was connected with the former.... The lower part of the abdomen, when measured by a line taken from the umbilicus to either of the superior spinous processes of the ilium, was demonstrated to be fully an inch larger on the left than on the right side." (Page 678.)

"Hysteritis and overitis" set in twice during her stay in the Hospital, and were subdued by appropriate treatment. The vaginal sac refilled, and was tapped in all four different times. Her general health became restored, and she left on the 22d September following.

She had not while in the house any return of her menses. But these returned shortly after going out; and with that the sac in the vagina became again distended

with fluid, and burst of its own accord, at the old cicatrice, at the close of the year, by which she obtained great relief. With the exception of a slight interval, she was enabled during this period to follow her former occupation, at which she continued till the end of January, 1852, when a violent return of some of her old symptoms sent her back to the Hospital which she entered on the 6th of February.

From this point the unpublished portion of the clinical history of the case remains to be taken up, and that will now be done, and very briefly.

Acute inflammatory action occurred anew in the uterine region, and, this time, spread over the peritoneal covering of the rest of the abdomen.

She did not menstruate again after she entered the Hospital; nor did the sac again refill; the artificial opening to this remained in a fistulous condition, and a discharge, with an exceedingly bad odor, constantly drained away from it.

The more violent symptoms of peritonitis were subdued by appropriate means; but for some time, after this, there still remained some chronic inflammation, especially in the hypogastrium. The tumor in the left iliac fossa was observed gradually to subside, till latterly it all but disappeared.

The following note of her case, taken from my note-book, made on the 7th April, will perhaps serve best to show the condition at this time of the diseased parts; it was the first digital examination, as well as the last, which I was permitted to make during this occasion. "This morning made an examination per vaginum The passage tender; when the finger was being introduced, complained much of pain. The old sac, connected with the anterior wall, still there, but very little distended. The *os uteri* easily got at; firm and small (normal) to the feel. The body of uterus felt larger than natural; when the abdomen over it was pressed upon, this did not seem to be moved in any obvious degree; but when the left ovarian region was pressed upon, in a slanting direction towards the centre, there seemed to be some motion imparted to the body, or that portion of it adjoining the cervix uteri on the same side; a good deal of pain was complained of when the finger was made to push against the uterus. The whole passage and uterine organs seem to be highly irritable; no increased heat noticed."

Her treatment now was palliative. She never recruited; ceased to take her food well; became anæmic, and finally symptomatic irritation, producing vomiting and diarrhœa, came on, and this, together with the constant drain of purulent matter, soon hopelessly exhausted her. She expired, as already mentioned, on the 9th of May. The body I examined twenty hours after death, and will now proceed to give the main results obtained.

Opening the abdomen exposed several bands of adhesions in different portions of that cavity. The peritoneum lining the different parts within the pelvis, was black and sloughy looking. Several of the parts here were torn on the slightest freedom being made. The most important alterations of structure were found on the left side. The ovarium was in part destroyed, as if by suppuration; and a considerable cyst, connected with it, was found in a nearly empty state; from the rugged condition of its walls at several points, as well as adhesions it had formed with adjacent peritoneum, it was pretty evident that it had burst at some previous period; most probably when she last entered, giving rise to peritonitis. The Fallopian tube was turned forward on itself, and was retained in this position by an adventitious band, which connected it, by a point, at its fimbrated extremity, to the left fundus of the bladder; while its open canal, greatly distended up to the point of flexion, was con-

nected with the aforesaid cyst, of which, it may be said, it was made to form a part; its inner surface, as well as the same in the cyst, had a dark, melanotic-like appearance, showing that the contents, which had discolored the latter, had been also in contact with the former, and suggested the channel by which these had escaped from the cyst, and finally out of the body. The other half of the Fallopian tube, namely, that which connected it with the uterus, was of *normal calibre*, barely permitting of a small silver probe to pass it.

The right ovarium was small and soft; and here, as on the other side, there were considerable traces of chronic inflammation in the peritoneum to be seen. The uterus was larger than the unimpregnated usually is; but further than this, and the changes noticed in its peritoneal covering, it presented nothing externally by which to distinguish it from the normal virgin uterus. (See note and fig.)

Removing it and its appendages from the body, the vagina was next laid open, and the connection of its sac with the parts superior endeavored to be traced. A probe introduced into the fistulous opening, found an inch above the meatus urinarius, to my astonishment, passed readily up into the fundus of the uterus; another, introduced by the os uteri to the same quarter, could not be made to come into direct contact with the former. The cause of these anomalies was explained by laying the uterus open, when it was ascertained that this was *divided by a longitudinal septum, composed, to all appearance, of the same tissue as the uterus itself, into two distinct and nearly equal cavities; the right having the os uteri as its natural outlet, the left being furnished with none such, but made to communicate with the sac in the vagina, which, indeed, seemed an extention of it, both having the same mucus lining.* The color of the interior of the sac, as well as the uterine cavity connected therewith, partook of the same darkened hue as that observed in the ovarium cyst and expanded portion of the Fallopian tube. The color of the right cavity of the uterus was different, being that of the healthy organ.

The *rugæ* of the vaginal canal, especially in the neighborhood of the fistulous opening, were much excoriated. The os uteri, however, was healthy.

No other disease of any consequence was found in the contents of the abdominal cavity. The chest was also examined, and no disease found there. I was therefore correct in the conclusion I came to at the outset of her disease, "that there was nothing of a malignant character about it." It will be seen also that I was correct in my early diagnosis of the vaginal tumor, "that it was in some way dependent on the diseased condition of the parts occupying the uterine and left ovarian regions," and not simply a pelvic cyst, as some supposed.

The manner in which the uterus was involved continued confessedly obscure; though from the earlier diagnosis quoted of the *ridge-shaped* tumor occupying the left uterine region (no doubt from the distention of the fluid commencing in the middle of the uterus and confined to the left side), as well as that made at a later period and quoted above, it was rendered pretty evident that it was the left portion of that organ which was especially implicated. It remained for the post mortem, by disclosing the double character of the uterus and occlusion of the left side, to clear up, as it completely did, what otherwise was obscure in the history and symptoms of this extraordinary case.

The intelligent reader will, on a review of all the facts furnished, readily understand how a female with this malformation should get along well enough till the change at puberty established itself; after which, and while the menstrual fluid secreted in the

right side continued to flow regular at each monthly period, he can see how that which was secreted in the left, which was occluded, being retained, should occasion distention, which would, while her periods remained regular, go on increasing.

It is difficult to say whether the shut sac originally terminated on a line with the neck of the uterus, and ultimately extended itself down, by the augmenting pressure of the contained fluid causing the parieties to give way at this their weakest point, into the vagina, where it was latterly found; or whether this extension existed as a congenital formation; but, be that as it may, it is certain that the accumulation of the fluid up to a certain point, occasioned but little annoyance; having, however, once reached that point, further enlargement of the vaginal sac became more difficult, and therefore more painful. Continued distention led to irritation in this and the left side of the uterus, which was communicated to the ovaria of the same side; and this again to the inflammatory action which prevailed when she first entered the Hospital; and which, as we saw, was more especially confined to the left side of the uterus, and its appendages. He will also easily perceive how difficult it was to conclude in this case that the vaginal sac, as well as the other ailments, were caused, as the sequel proved, by retained menses, with the woman menstruating regularly when the first of these made its appearance; and indeed a considerable part of the time since up to her admittance to the Hospital.

Again,he will understand how, after the treatment followed to relieve her, and especially the menses remaining away, the woman's health should be so far established as to leave the Hospital and resume her former occupation as she did. Further, he will see how a restoration to perfect health and the return of the catamenia, which occurred on her leaving the Hospital, should bring on a recurrence of all her former annoyances, as it shortly did. The dark color of the fluid which came from the vaginal sac, when it burst at this period, and which resembled that which came away shortly after she entered the Hospital first, when I tapped it, leaves little reason to doubt but that it was retained menses. It differed much from that which was obtained from the same on two intervening occasions, when her menses were absent some time, which was, it will be recollected, yellow and gelatinous looking, and was probably secreted by the inner walls of the sac. From all of which it will appear evident that the peculiar character of the malformation of the uterus was the immediate cause of all her ailments. Indeed in this case greatest safety would seem to have consisted in that deranged state of health where the menses remained suppressed; while complete restoration to health, as we have seen, contrary to what is usaal,proved her bane. Whether in a similar case, supposing its nature to be known, any surgical operation at the outset, by which free vent would be secured for the secretions of the occluded half of the uterus, would prevent like distressing results with those above recorded, remains to be proved. But cases of this kind are so exceedingly rare, that one may never have an opportunity of meeting with another. A few are recorded where the septum was partial. One of this kind, the latest I have noticed, is copied in the British and Foreign Med. and Chir. Review for April, 1849, and here it so little interfered with the ordinary function that the woman had children several times, and twins once. But, at present, I do not recollect to have noticed any, where the septum was complete with occlusion of one side, as in the one I have recordod above; and where also similar pathological changes resulted from it: though I have little doubt some such have been met with; and some of these recorded also.

Note.—The accompanying Figure represents the posterior of a double uterus, with

the vagina laid open from behind. From the sketch having been inadvertently transferred to stone without being reversed, the impression exhibits the right left, and left right; this requires to be recollected.

A, Meatus Urinarius. B, Vaginal Sac. C, Left Cavity of Uterus. A probe introduced into the fistulous opening, is seen traversing these. D, Os Uteri. E, Right Cavity of Uterus. The longitudinal septum is not attempted to be shown.

OUR ORIGINAL CONTRIBUTIONS.

This number will be found rich, both in the variety and ability with which the original articles are written. They occupy nearly 80 pages of the Journal, and will be read, we feel satisfied, with much interest by our subscribers.

The first article, "*On the use of Quinine in Continued Fever*," by Dr. Wm. M. Boling, of Montgomery, Alabama, is elaborated with all that precision and accuracy so characteristic of the distinguished author. Dr. Boling is opposed to Quinine in Continued Fever, and contends that, whether given in large or small doses, it fails to arrest the fever. He deals some terrible blows among those who advocate doctrines adverse to his views. He has tested the Quinine practice and finds it a failure. In the course of his remarks he does not forget to inflict some gentle strictures upon the views of our *vis à vis* confrère—Dr. Fenner, who contends that Quinine, if properly given, in the forming stage of fevers, will cut them short.

The second article, "*On the present Hygienic condition of California*," etc., by Dr. Thomas M. Logan, is prepared with that regard to elegant composition and finish of diction, seldom witnessed in the productions of medical practitioners. Dr. L. is a finished scholar, and is as familiar with the works of Addison, Steel, etc., as he is with those of Sydenham, Pringle, Rush, and others of like renown. His style has all the attractiveness of Bulwer's or James', but at the same time, he imparts the soundest medical doctrines, and proves himself an astute observer and a sound practitioner. Dr. Logan's contributions to medical literature have already secured him a well deserved and a wide-spread reputation.

The third paper, on the "*Mortuary Statistics of Memphis, Tennessee, for* 1851," by Prof. Shanks, is a reliable paper, and contains much interesting information in relation to the sanitary condition of Memphis. Prof. Shanks, we need scarcely tell our readers, is a gentleman of great ability, and has already acquired a high standing in the profession, by his contributions to medical and statistical science.

Article fourth, "*On a Case of Gun-shot Wound*," by Dr. Massie of Texas, displays at once the scholar and the scientific surgeon. To Dr. Massie's skill the patient was indebted for his life. His case is highly creditable to American

surgery, and will have an important bearing upon the treatment of gun-shot wounds.

The *fifth* article, by Dr. Magoun, on "*Natchez as a winter resort for Consumptive Invalids*," is calculated to produce a favorable impression abroad, and to invite consumptives to that high and salubrious city for the restoration of health. According to the statement of Dr. Magoun, Natchez is unquestionable the most desirable place in the South for consumptive subjects. His arguments and statistical information may be relied upon.

The "*Clinical Notes from Private Practice*," is the *sixth* article, by Doctor Scruggs of Louisiana. These notes indicate the sound and reflecting practitioner, and the quick and ready observer. They abound in professional episodes, and will do much good in the profession. Read them attentively.

The *seventh* article, on "*The Yellow Fever, at Houston, Texas*," by Doctor Massie, without claiming any thing original, is yet full of valuable suggestions and historical incidents.

Article *eight*, "*On the Motive Power of the Blood*," by Dr. Ely, is a masterpiece of logic and severe analysis. He utterly demolishes the so-called "Willardian theory," and leaves scarcely a wreck behind. If any enthusiast can command the moral courage hereafter to uphold this "vision of the brain," he will be compelled to rest his postulate upon a sandy foundation. Dr. Ely has ended the farce, and why not let the curtain drop upon the scene of strife for ever? His paper is a model for argument, and that scathing criticism which many may strive to imitate, but few indeed can excel. Let every one read it.

Article *ninth*, "*On the Cholera as it appeared in California*," by Dr. Taylor of Alabama, gives a distressing picture of the hardships and sufferings of emigrants, when crowded together on board vessels in search of *El Dorado*. Much credit is due the Doctor for his exertions in behalf of his fellow-passengers, under the most trying and alarming circumstances. Such conduct indeed ennobles the profession, and justified the Roman orator when he exclaimed that "a humane and rational Physician was equal to the gods."

Article *tenth*, on "*Contributions to Experimental Physiology*," by Doctor Bennet Dowler, stands *alone* for its originality, raciness and bold declarations. Dr. Dowler asserts nothing that he cannot reveal by the knife; he kneels before the great temple of the living God, and with scalpel in hand, carves his way into the *sanctum sanctorum*. He relies upon no guide—he has no Mentor but Nature—no genius but that of inspiration, and no object but that of truth. Dr. Dowler has dealt out some heavy blows against the theories first enunciated by Sir Charles Bell and Mr. Hall, and subsequently upheld by a host of British and American writers. Unterrified by the "*stat nominis umbra*," by the shadow of great names, he has pushed his physiological inquiries far beyond his predecessors, and is now upon the very threshold of that world of light, which is destined to burst upon and astonish the scientific world. Let no cowardly criticism seek to deter him from his high mission. Dr. D.'s paper will bear a careful perusal.

Article *eleventh*, on "*Probing the Fallopian Tubes*," by Dr. Cartwright, is intended as a rejoinder to certain critical observations on "Catheterism of the Fallopian tubes," as published some time since by Dr. C. in this Journal. The Doctor is exceedingly caustic in his reply, and argues in favor of the practicability of the operation under certain morbid conditions of those tubes. He is a pleasing writer, and as a debater on disputed medical questions, a most astute and formidable antagonist. Dr. C. is not easily driven from the field of controversy; and if modern writers fail him, he appeals at once to those who wrote in Greek, Latin and Hebrew—thus overwhelming his assailants by his immense biblical knowledge.

Let no critique then attack the Doctor, without first counting the cost. He wields the club of Hercules, and never lifts it but to fell his opponent to the earth.

With these hurried remarks we dismiss our contributors, and again thank them for the pleasure and instruction we have derived from a perusal of their several papers.

KOUSSO ON THE TAPE-WORM.

A. Hester, M. D.

Dear Sir—In compliance with a promise made you some time since, I now give you the result of my experience with the new remedy for Tape-worm—Kousso. I have used it in two cases only, which I will relate as briefly as possible.

The first was a young gentleman, about the age of twenty-one years, a resident of this city. He had suffered from it from childhood, and had been treated for it by a number of Physicians, both in England and in this country, previous to my acquaintance with him. He states that no treatment heretofore used had afforded him any but partial relief, and at last would mitigate his suffering only for a few days. The entire catalogue of Anthelmentics had been thoroughly tried in his case, particularly the Terebinthinate preparations, and pushed to an extent in several instances to seriously affect his general health, and as he states, in one or two, to endanger his life; still the animal was not destroyed and his sufferings continued.

I have treated him for the last three years, at intervals, with varied results, but invariably gave him some relief for a time; at times he would discharge from a few separate joints to several hundred; at others, portions of the worm measuring in length from three or four inches to seventy or eighty feet; and I may here state, that since I commenced treating him, he has discharged over *a thousand feet of worm.*

In February last it annoyed him very much, and I determined to try the Kousso on him; accordingly, half an ounce was administered in water at bed-

time, followed in the morning by a seidlitz powder. In a few hours his bowels were moved, but no signs of worm or the Kousso could be discovered in the evacuations. During the following night the Kousso came away, bringing with it a large quantity of the worm, broken, and torn, and mangled to such a degree, that it was some time before it could be recognized in the mass of matter. Such portions as could be selected from the mass, of sufficient size and form, worthy of preservation, can be seen at my office, with specimens of entire worm from the same person.

With a view of making it as certain as possible, and to give it a full trial, after the lapse of a week the dose was repeated; but this time it was premised by a dose of castor oil, for the purpose of emptying the bowels, so as to give the remedy entire control of the alimentary canal, and to encounter nothing but the animal itself; but no traces of worm could be observed in the operations of the bowels; nor since the operation of the first dose. The young man is positive that the animal has been entirely destroyed.

The other and last case was also a resident of this city, a lady, about 35 years of age. She had passed portions of worm for fifteen or eighteen years. She suffered greatly from indigestion, derangement of the bowels, menses, etc., mostly all her life.

A half ounce of Kousso was given her about the first of March last, which brought away a large amount of worm, broken up as in the former case. In this case no cathartic medicine was given either before or subsequent to the administration of the Kousso.

Her digestion has since greatly improved; her bowels and menses have become regular; and she has gained considerable flesh and color; in a word, her general health has greatly improved. She states she never was as well in her life before. So far she has had no return of the symptoms of the worm, and believes she is entirely relieved.

I am not prepared to give a decided opinion as regards the action of the Kousso upon the worm; but you will readily infer from the foregoing (the appearance of the worm as brought away by the remedy) that I am inclined to the opinion that it acts mechanically upon it; analogous to the Dolichos Pruriens on the Lumbricoides.

Upon reflecting on this method, after having made the promise, I came to the conclusion to defer this communication longer than was originally intended, for the reason that I wished some time to elapse, to see whether there would be a return of it in either of the cases, as I desired to give a statement that could, to some extent, be relied on.

Although several months have elapsed since the medicine was given, and no symptoms of the existence of the worm have reappeared, still I am not yet satisfied that they will not return. Should they return in either case, I will advise you of it.

In conclusion, I would say that although not certain that this article will or can entirely eradicate the worm, and drive it from the system, I am satisfied

that it is the most effective remedy I have ever tried in its removal, and I have used all the remedies I ever heard of, and have treated a good many persons suffering from Tape-worm. I would further add, that there is no danger in using it whatever; no unpleasant symptoms occurred in either of the cases; and did not even disqualify them for their ordinary pursuits.

Very respectfully, yours, etc.,

J. A. FRYDINGER, M. D.

New Orleans, June 20, 1852.

THE MINERAL ACIDS IN CHOLERA.

We feel it our duty as editor, to call the attention of the profession to the efficacy of the mineral acids in the treatment of Cholera. From time to time, we have noticed certain communications in the London Lancet and other respectable periodicals, in which Sulphuric Acid has been highly extolled as a remedy in Cholera and Diarrhœa. Recently, during the prevalence of this disease in our city, some of our most respectable Physicians have been induced to test this medicine, and according to their testimony, with the most astonishing results. It has proved successful in several cases, marked by complete collapse, —a cold, relaxed and clammy skin—sunken and retracted features—pulseless—with vomiting and colliquative discharges; and indeed all those fearful symptoms which generally characterize the latter stages of this disease. Of course, it is not contended that the medicine will relieve and restore those who have been collapsed for hours; in such cases Providence alone can avail any thing. But in cases just sinking into and even already collapsed, the following formula has arrested the disease and brought about reaction:

℞		
	Acid Sulphuric,	gutt xii
	Acid Nitric,	" x
	Aqua Distil.	f ʒ iss
	Sach. Alb.	qs.

Fit. Mist.

Dose—Tea spoonful every *ten* minutes. The medicine speedily allays vomiting and checks the purging, and the pulse gradually but steadily rallies, and reaction is in due time established. None of these cases have come under our personal observation; but we have assurances of the efficacy of this treatment from medical friends in whose intelligence and veracity we place implicit confidence.

We are now testing the remedy, but will not be able to report the result in this number.

We hope our friends will give it a fair trial, should opportunity, unfortunately, offer. The patients take it readily, and it is scarcely less pleasant than a lemonade. Whilst using the medicine internally, the usual revulsives and counter-irritants may be employed externally.

EFFICACY OF FULL DOSES OF QUININE IN COMATOSE PERNICIOUS INTERMITTENT FEVERS.

Comatose Pernicious Intermittent Fever is, among French writers, tantamount to our *Malignant Intermittent*, attended or complicated with violent cerebral symptoms. We read with much pleasure and instruction the report of two cases of this form of fever in our industrious cotemporary, *L'Union Medicale de la Louisiane*, drawn up by Dr. Charles Faget of this city. One was the case of a Priest—the other that of a negress. Both, during each returning paroxysm, labored under stupor, or rather coma, with a small, feeble and rapid pulse, cool extremities and tongue. With much tact and *habilité*, Dr. Faget detected the *remittent nature* of the disease, and forthwith decided upon the *only* course of treatment upon which he could rely for success, being well aware that each recurring *access* but diminished his chance of success. With as much boldness as skill, he resorted to full doses of the Sulphate of Quiniue, regardless of the comatose symptoms, and had the gratification of rescuing both his patients from death. He gave 35 grains of Quinine to his clerical patient at one dose, and gradually reduced it daily. As the heat returned to the extremities, the pulse rose and became full, and the head symptoms yielded. The negress was treated in a similar manner, with the addition of cold affusions upon the head, and she too gradually rallied.

What would have been the issue of these two cases, had Dr. F. made a false diagnosis? Had he overlooked the *essential element*, the *pernicious* character of the paroxysms, both must have perished; because Quinine is the *only* agent that can avail us under such circumstances. Great credit then is due Dr. F. for the display of so much diagnostic skill and courage in the treatment of the above cases.

We have barely alluded to this subject, and regret that we cannot make room for the full details of all the interesting particulars connected with the report.

PROF. RIDDELL'S MICROSCOPIC OBSERVATIONS.

In this number Prof. Riddell resumes his microscopical observations, which were continued up to our March number. They will be found highly interesting, and have been illustrated by engravings on stone, at a heavy expense to the proprietor. They relate chiefly to the peculiar structure of the blood, and will be continued on this and kindred subjects, in our future numbers. We are fortunate in securing the labors and contributions of a gentleman so highly gifted and zealous in the cause of microscopical science. The power and accuracy of his instruments, and his tact in using them, will enable him to throw much additional light on many physiological and pathological questions, hitherto undetermined by his predecessors or contemporaries. Prof. R. will continue his labors, and we shall lay the result before our readers.

Dr. Macgibbon furnishes us for this number an anomalous case of *double* uterus, illustrated by plates engraved on stone. It deserves a careful perusal.

ABSTRACT OF A METEOROLOGICAL JOURNAL FOR 1852.

BY D. T. LILLIE & Co., at the City of New Orleans.

Latitude, 29 deg. 57 min.; Longitude, 90 deg. 07 min. West of Greenwich.

WEEKLY — 1852.	THERMOMETER.			BAROMETER.			COURSE OF THE WIND.	FORCE OF THE WIND, Ratio 1 to 10.	Number of Rainy Days.	Quantity of RAIN — Inches.
	Max.	Min.	Range.	Max.	Min.	Range.				
April 22	83.0	49.0	34 0	30.00	29.85	0.15	W.	2.75	1	0.465
" 29	85.0	56.0	29.0	30.20	29.95	0.25	SE.	2.10	2	0 875
May 6	87.5	68.0	19.0	30.30	30.05	0.25	S.	2.20	1	0.005
" 13	88.0	67.0	21.0	30.25	30.10	0.15	E.bys.	1.80	0	0.000
" 20	89 0	71.0	18.0	30.13	30.10	0.03	E.	1.85	1	0.015
" 27	87.5	68.0	19.5	30.12	29.95	0.17	SW.	1.60	4	3.295
June 3	86.0	69.0	17.0	30.05	29.85	0.20	N.E.	2.00	4	1.660
" 10	88.5	72.5	16.0	30.20	29.95	0.25	S.	2.15	1	0 015
" 17	89.0	72.0	17.0	30.25	30.15	0.10	E.	2.50	2	0.260

The Thermometer used for these observations is a self-registering one, placed in a fair exposure. Regular hours of observation: 8 A. M., 2 P. M., and 8 P. M.

CHARITY HOSPITAL,

Report for April and May, 1852.

	SEX.	APRIL.		MAY.	
ADMISSIONS - -	Males	699		829	
Do. - - -	Females	287		384	
			986		1213
DISCHARGES - -	Males	693		705	
Do. - - -	Females	282		302	
			975		1007
DEATHS - - -	Males	84		148	
Do. - - -	Females	28		54	
			112		202

There have been from the 1st of April up to this day, (18th June) 178 deaths from Cholera in the Charity Hospital.

JUSTIN V. LOUBERE,
Assistant Clerk.

RESIGNATION.

Prof. Thomas D. Mitchell has resigned the chair of Theory and Practice in the Philadelphia College of Medicine.

THE NEW-ORLEANS

MEDICAL AND SURGICAL JOURNAL.

SEPTEMBER, 1852.

Part First.

ORIGINAL COMMUNICATIONS.

I.—VERATRUM VIRIDE.

Green Hellebore—American Hellebore.

New Orleans, May 5, 1852.

A Hester, M. D.

Sir—Intending to remain for several days in your city, we have determined to occupy our leisure moments in noticing, to some extent, the evidence we hold of the valuable remedial powers of the above article or agent. We trust, in all our dealings with our patients, as well as our medical brethren, that we have endeavored to honor and advance the science and art to which we belong. If any person will take the time and trouble to read with care and attention three articles written by us, and published in the June number, 1850, January number, 1851, and January number, 1852, of the Southern Medical and Surgical Journal, of Augusta, Georgia, he will find a faithful and unvarnished statement of the powers and properties of the above agent; and from which statement and facts we have no reason nor cause for changing in the smallest degree any thing there said and set forth, unless after repeatedly testing it on our own person, we would be induced to deny that it possessed narcotic powers. But more of this in future. We have the most ample and conclusive evidence in our possession, corrob-

orative and positively sustaining and confirming every particular as set forth and claimed.

We will briefly repeat here what we have stated elsewhere—that it is emphatically the only known agent by which arterial action can be certainly and effectually controlled. That by virtue of this power, in connection with its diaphoretic, nervine, expectorant and emetic properties, we are enabled to break up and arrest Pneumonia Typhoides at the outset, and to cut short and cure it when fully formed, with a certainty and promptness unknown to any other agent or remedy. By it Typhoid Fever stands disarmed, and has acknowledged in Veratrum Viride a victor, and a subduer and mitigator of its heretofore unmanageable symptoms or effects. In one word, it is more or less adapted to the treatment and cure of acute febrile and inflammatory diseases of a remittent and continued form. We will simply enumerate a list of diseases in which it is peculiarly adapted, and successfully meets the indications therefrom arising: Pneumonia Typhoides, Typhoid Fever, Rheumatism, Scarlet Fever, Puerperal Fever, etc., etc. Also in Asthma and Hooping Cough, accompanied with high febrile excitement; Convulsions in children from one year old and upwards—are subdued with the greatest promptness, when found in connection with strong febrile symptoms; in acute affections, or inflammation of the brain, and in delirium associated with or supervening on ebrile and inflammatory diseases. But we omit to state further on our own knowledge and observation of its powers, knowing how prone we are to be influenced, like other men, by the effects of any favorite agent or measure that may have originated or been proposed. We will give, in conclusion, and in confirmation of what we have asserted and stated, what others have written us.

With a large number of the gentlemen from whom we quote, we have never had the pleasure of but a very limited personal acquaintance. Professor Dickson writes:

"I have used and distributed freely to my friends for experiment, the tincture you sent me. I have prescribed several times, and in various cases, the Veratrum as prepared by you. I have found it a very efficient drug; and am disposed to entertain strong hopes of great benefit from it. In one case of Pneumonia it appeared to control and arrest the disease with a promptness I have never seen equalled. It does diminish the frequency of the pulse with more certainty than any thing else in the materia medica. I have from those to whom I gave it, reports corroborating these statements, and highly favorable to the efficiency and energy of the Veratrum Viride."

Dr. T. Ridley, of Lagrange, Georgia, states:

"I have used the article furnished above extensively in my practice for the last three months, and consider it one of the most valuable acquisitions to the profession which has been made in the last half century. * * It is, in high inflammatory action of the circulatory system, dependent upon organic or functional disease, what Quinine is in paroxysmal diseases, a certain and reliable specific. When I first heard of the remedy and the astonishing effects which its friends declared it exerted upon the human system, I was inclined to look upon it as another of the thousand and one humbugs with which the public were so frequently afflicted. * * I looked upon it with suspicion, and at first commenced its use with very great caution and circumspection. I very soon found it a remedy of great value; and from the moment I first commenced its use until the present time, I have never administered it in a single case, but with the happiest results. In Pneumonia Typhoides I consider it a specific. In Typhoid Fever, which physicians have considered an 'opprobrium medicorum,' before the introduction of the Veratrum Viride, it has exerted the happiest influence, controlling the circulation and reducing the pulse from 140 and 145 to 70 and 75 in the short space of eight hours."

After stating at length its wonderful powers in the cure of Typhoid Fever, he continues—

"At a time like the present has been, (1851) when the 'pestilence which walketh in darkness' has been making such fearful assaults upon the lives of the wise, virtuous and good, a remedy which exerts such a controlling influence in checking its heart-rending influences, is worth more than armies to the public good."

Dr. Billing of Columbus, Georgia, writes us:

"I left home for Marion a few days after you. When I returned I found Dr. Boswell (his partner) in full blast with the Veratrum Viride. Visited his cases with him; have used it in a few cases myself, and in every case it was *sure to reduce the pulse.* I am as *well pleased with it as I anticipated,* and as much so as *any one medicine I ever used.* I have no idea you claim for it as much credit as it is entitled to. Four out of the six ounces are used, and we will soon need more. Every physician here (Columbus, Georgia) who has used it, is pleased with it so far, as I am informed. A gentleman in whose family I used it, requested me to get him some of it. He observed, I intend to get it and keep it in my family, at least so long as Pneumonia and Typhoid Fever continue I know where it was the cause of one physician getting the practice from another, because he had the Veratrum Viride."

In another letter, dated April 28th, 1852, we have the following:

"The Veratrum Viride is all you claim for it. I have not the time to go into minutiæ. The first lot purchased has been consumed, or nearly so. It

has never failed in my hands to reduce the pulse ; and I have used it in very bad cases. * * My opinion is that it is one of the greatest discoveries of the age, and would not be without it for any consideration. * * All the profession want is to see it used, to yield implicit faith to its ability. And my opinion is that the time will come when a physician would not think of ordering a bill of medicine without having your preparation first on the list. Superior to the lancet by far, or any other nauseant. I am not an enthusiast. This is my opinion from mature reflection."

Dr. Ellis of Oglethorpe City, Georgia, writes thus after one year's experience and use of the article :

" Please pardon me for not giving you earlier the result of my experience with the Veratrum Viride. * * I can truly say that I have never found any remedy that produced its specific effects so certainly. In my hands it has never failed. I have used it in Scarlet Fever, Pneumonia, Typhoid Pneumonia, Typhoid Fever, Inflammatory Rheumatism, and in all cases where I wanted to lessen the frequency of the heart's action, and in no instance has it failed. In your published articles you have claimed much for it ; but not more, nor as much, as it really merits ; for if there is any thing in nature entitled to confidence to such a degree as to amount to a certainty, it is most undoubtedly the article. I hope the profession will universally adopt its use, and thereby secure for the science a triumph it so justly merits in saving thousands from an untimely grave."

Dr. J. F. Moreland of Corinth, Herd County, Georgia, after stating the certainty of its powers in the most striking manner, concludes thus :

" My testimony as a medical man of some experience may, however, be briefly stated to be decidedly favorable to the use of said article, believing, as I do, that no physician can use it without regarding it as a very efficient article, and such a one as in its specific control of the action of the heart in feverish excitement, fully meets our heretofore earnest desideratum. Digitalis succeeds in one case out of twenty, perhaps ; this preparation in nineteen out of twenty, more certainly. So much at present in reference to my appreciation of the use of your preparation of Veratrum Viride. I know that I am sincere, and do not think that I am enthusiastic beyond a reliable matter of fact."

Dr. E. L. Roy Antony, Waynesboro, Georgia, writing as for information or a supply for making of a pint of the tincture, and afterwards for his friend Dr. Montgomery, of the same place, observes thus :

" Allow me to say that I was in possession a year ago of two ounces, and I shall be enabled shortly to corroborate all, and more than you have written upon that article."

We could give other and almost numberless quotations from medical gentlemen, whose letters we have not with us—Dr. Fair of Columbia, South Carolina, Dr. Ruff of Newberry Court House, South Carolina, Dr. Robison of Winsboro, South Carolina, etc. etc. We have in our possession letters, from New York to Missouri, inclusive, and would be much pleased if we had it in our power to supply and answer all those who have written to us.

We always make it a rule to leave written directions for giving any medicine that may require the dose to be repeated. How persons can leave verbal directions and have them properly executed, by a class of individuals wholly unacquainted with, and unaccustomed to, such duties, is a marvel to us. And why more serious accidents do not oftener occur than really do, we cannot wholly account for, unless it is in this way, that those to whom the administering of the medicine is left feel themselves responsible, to some extent, and conceal events that they feel accountable for in some measure, when in fact the physician has assumed the whole responsibility, by leaving nothing but verbal directions. Mere statements on the effects, or from the effects of medicines, should never be relied on as evidence, unless predicated on a well written set of directions.

The above remedy is subject to the same rules and regulations as other active agents of the Materia Medica. In directing a medium dose, we presumed it would be understood as a general rule and direction, and that the good sense of the physician would be looked to, to regulate it according to temperament, idiosyncrasy and susceptibility, as in like cases with other medicines. Ten grains of Calomel is a medium dose for an adult; yet we know a lady on whom one grain will act drastically. One grain of Opium is a medium dose; we know a person who cannot take five drops of laudanum without suffering all the consequences of a full dose. Two to four and six grains of Tart. Emetic is a medium emetic dose; yet we know cases of athletic men on whom the fourth of a grain will act for an hour, unless arrested by Opium in some form, and mustard plasters or rubefacients. We know personally two ladies, who, on taking Opium, have the most violent pain, spasm or cramp excited in their stomach; we have heard of others thus affected. We know a person who cannot take Quinine without having the most intense and agonizing pain excited in the stomach. We have heard, on the best authority, that even the 48th of a grain of Strychnine produced some of the peculiar effects of this article. What would have been the result, if any of those who were so peculiarly susceptible, had taken a medium-sized dose? So that the prac-

tice of medicine is one of watchful care, intense labor, and deep and abiding responsibility; and he who neglects to administer a powerful remedial agent, because it requires caution and care, discrimination and discernment, is as morally and religiously culpable and accountable, as he who wantonly and carelessly administers the same, having full knowledge of its active powers.

In conclusion, being fully and forcibly impressed with our accountability to a higher bar than merely public opinion, we feel constrained to offer to the full confidence of the medical profession Veratrum Viride, with a former assertion, that it can be as easily, readily and safely given as any other equally active and efficient agent.

W. C. NORWOOD,
Of Cokesbury, South Carolina.

II.—WOUND OF THE LIVER—EXCISION OF A LARGE PORTION OF THE RIGHT LOBE.

BY J. C. MASSIE, M. D., OF HOUSTON, TEXAS.

Some three weeks since I was summoned, in great haste, to visit a son of Mr. Simmons, at a distance of some thirty miles from this city. A brother of the unfortunate youth wounded, had a gun lying across his lap, picking the flint; it went off, the contents of the whole load passed into the right hypochondrium, and mostly out about the region of the epigastrium. The youth, who is about seven years of age, was standing close to the gun, and it was charged with large shot; a portion of the liver protruded through the external wound. A physician in the neighborhood was sent for, who reached the case about four hours after the accident. After examination, he viewed the case as hopeless, and consequently declined doing any thing; he visited the case, however, on the next day, and advised that I should be sent for On the fourth day after the accident I visited the patient, accompanied by my friend Dr. Black. We found him in a very deplorable situation; the anterior margin of the right lobe of the liver was protruding through the cavity on the right and a few lines above the umbilicus; it was in a gangrenous condition, with a portion of the omentum attached; the substance of both was so much altered, that it was really difficult to tell what the protruding portion was; the abdomen was very tense and

hard, the least pressure giving severe pain; there was great arterial excitement, accompanied by a high inflammatory fever. This is a brief and very succinct account of the condition of the little patient, and my friend Dr. Black, as well as myself, regarded the case in a hopeless condition. I informed his friends, after making known to them the danger of the operation, that I would operate, remove the gangrenous portion of the liver, and give him all the possible chance there could be left for his life. From the external character and appearance of the wound, I was fearful gangrene had extended within the abdominal parieties.

I commenced the operation by enlarging the orifice about four inches; on examining the substance of the liver, I found two shot had passed at least two and a quarter inches from its inferior border, penetrating through it; the substance of the liver which was in juxtaposition to the wounds had a thick, grumous appearance, with sphacelated portions. Under the circumstances, I determined to excise every portion of the liver which had the appearance here described.

Blanchard, in his *Anatomica Practica Rationalis*, says, "A small portion of the substance of the liver may be removed without necessarily inducing a fatal result;" and Dr. Henen, (Mil. Surg., p. 439) says, "A deep wound of the liver is as fatal as if the heart itself was engaged."

I felt great apprehension in excising the amount I was necessarily compelled to do, and when I inform you that I excised quite one half of the right lobe, equal to twice the amount of the left, you will then see how easy it is for persons high in the profession to make statements without proper data.

When the operation was finished, I passed a strong suture through the abdominal parieties, closed the wound, and subsequently a vigorous antiphlogistic treatment was adopted. I will not encumber your pages with a long detail of the daily treatment of this case. Nothing very remarkable, except for about ten days his discharges were passive, and he could exert no control whatever; at the present time he is able to exercise in his room, secretions natural, wound nearly healed up, and I consider him entirely out of danger.

This is an instance among many which may occur, and which may serve to prove to the profession, that a case, however desperate it may appear, should never be given up without an effort; and I do deem it very reprehensible, when professional men retreat, if I may use the term,

in desperate cases. An operation once undertaken, should always be concluded *secundem artem*—according to the circumstances of the case, however desperate may be the supervening results, or the obstacles that may seem to render the operation unavoidable. Sometimes he will find, in spite of all opinions, the patient recovers. I had a patient to lie apparently lifeless, in Grimes County, which is well recollected, under my own Scalpel, and under this embarrassing situation I finished the operation, and my doing so is the means of his present enjoyment of health, and his friendship to me.

I was kindly assisted by my friend, Dr. Black.

III.—AN ESSAY ON SORE THROAT, OR CHRONIC PHARYNGITIS.

Read before the Memphis Medical Society, May, 1852.

BY A. P. MERRILL, M. D.

This disease is of frequent occurrence, sometimes being caused by acute inflammation of the lining membranes of the throat, and sometimes by scarlatina, measles, exposure to cold, etc. It consists of a subacute inflammation or hyperæmic condition of the mucous membrane of the pharynx, frequently involving the tonsils and palate, the glottis and epiglottis, and extending into the nares and Eustachian tubes, and even into the external meatus of the ear. The membrane presents in these cases a highly vascular condition, and sometimes an evident thickening or hypertrophy, and not unfrequently an œdematous tendency.

In cases of severity there is a pretty constant tickling in the throat, producing a disposition to cough or to hack, a feeling of irritation and roughness about the palate and glottis, painful deglutition, and an increase of all the unpleasant symptoms consequent upon an over straining of the voice, followed by hoarseness, and in some instances by temporary or permanent aphonia. In such cases, the secretions from this membrane are nearly suspended; but with a partial abatement of vascular action, a viscid mucus is formed, which adheres closely to the surface, and by the irritation it produces, causes coughing.

As in other cases of subacute inflammation of the mucous membrane, a long continuance of this disease sometimes leads to ulcerations. The ulcers are generally of a phagedenic character, spreading rapidly, with

considerable waste of substance, and exceedingly sensitive to the touch. The act of deglutition, while these ulcers exist, is attended by acute pain, like the thrust of sharp instruments into the flesh. Sometimes the ulcerative process is of the pustular character, producing pustules or pimples considerably elevated, and filled with matter. This form of the disease has been called "Follicular Pharyngitis."

Chronic Pharyngitis sometimes has its beginning in early youth, and continues without any very urgent symptoms for many years. Persons troubled with this form of the disease are apt to experience a tickling in the throat, attended by a collection of viscid mucus, and a disposition to cough, or to hawk, upon every sudden transition from warm to cold air, and particularly upon first going out in the morning, in cold and damp weather. But these symptoms pass off as the day advances and the system becomes warmed by exercise.

When the hyperæmia and turgescence are much increased from any cause, a rupture of some of the engorged blood-vessels is a common occurrence, and the patient ejects mucus tinged with blood, which is hawked up from the throat. By close attention to this act, it is easy to distinguish such cases from those of Bronchitis, in which bloody sputum is coughed up from the lungs. And it is not difficult for an experienced observer to distinguish Pharyngitis in all its stages from Laryngitis, Trachitis and Bronchitis, even by the act of coughing or of ejecting sputum from the throat by convulsive efforts, which are short of coughing, generally called hawking or clearing of the throat. Pharyngitis leads to the establishment of those other diseases, however, by the extension of the diseased action into the air passages, and then the two affections exist together. This is the result so much to be dreaded, and which makes the early and skilful treatment of the disease of the utmost importance.

Habitual coughing, to a greater or less extent, is a common symptom attending Pharyngitis, and it is one which requires our particular attention. I believe it is a well ascertained fact, that the lungs cannot be exercised by frequent and long continued coughing, from any cause, without danger of the most serious consequences. The bronchial tubes are certain, sooner or later, to take on an excited and diseased condition from this convulsive movement, with every danger of hemorrhage and ulceration supervening, attended by hectic fever and other characteristic symptoms of Phthisis Pulmonalis. Indeed a large majority of the cases of Consumption which I have met with, have had their origin in a cough proceeding from the irritation caused by chronic Pharyngitis. Persons of a strumous habit, and those who labor under

the disadvantages of a hereditary taint, are perhaps more liable to this result than others, and experience its fatal influence in a shorter period of time; but the exciting cause is the same, and the course of the disease very similar.

This disease is commonly called *Bronchitis*, but this is an erroneous designation, for the bronchial tubes are not primarily affected, and when they do become seriously involved in the diseased action, it is not long before a name of more fearful import is assigned to it. We hear then of Consumption and not Bronchitis.

Public speaking is one of the most exciting causes of Pharyngitis, and clergymen, therefore, appear to be particularly obnoxious to it. This arises mainly from the unnatural and labored efforts which they are accustomed to make, together with their want of knowledge of the physiology and philosophy of the human voice. These efforts are in some cases repeated very often, in consequence of the high estimate which Christians of the present day place upon such preaching; and they are frequently made in over-heated and corrupted atmosphere, the transition from which to a colder and purer medium, in a state of fatigue and exhaustion, has a strong tendency to enhance the ill effects.

The usual remedies for this disease are counter-irritants externally, and stimulating and escarotic applications to the diseased surface. The former consist of blisters and various kinds of stimulating embrocations, accompanied by the use of flannel or silk to protect the throat from the influence of the cold air. The beard is sometimes permitted to grow for the same purpose. Sometimes a contrary course has been pursued, and the whole neck has been bared to the weather, with frequent cold ablutions, general cold bathing, and even the application of ice. These various remedies have their advocates, and no doubt all have proved useful under certain conditions.

The applications made to the throat internally are, Capsicum, the Sulphates of Copper and Zinc, Nitrate of Silver, etc. Capsicum has been found very useful in many cases, from its actively stimulating effects upon the torpid vessels, by which they are made to contract their calibres, and thus reduce the prevailing hyperamia. A healthy secretion of mucus sometimes follows this application, and a consequent relief of urgent symptoms. The principal fault in its application consists in its being prescribed as a gargle. Used as such, in the general acceptation of the term, it does not reach, to much extent, the diseased surface, but comes in contact principally with the mouth and lips, annoying the patient by its burning stimulation, without much influence over the dis-

ease. The best way of applying it is, by the use of a camel's hair brush, or a bit of sponge, using a strong decoction, and washing it well over the diseased surface. Or, if the patient throws back his head, and by the use of a small spoon carries a few drops far back upon the root of the tongue, and then swallows with the throat in this straightened position, he will bring the liquid into contact with a considerable portion of the diseased membrane, and avoid at the same time its unpleasant effects upon the lips.

The Nitrate of Silver has latterly been in higher repute in the treatment of this disease, than any other topical remedy; and it is at this time, I believe, more generally prescribed. It is no doubt valuable, and I have myself witnessed the happiest effects from its application, both in solution and in substance. In one case of considerable violence, however, phagedenic ulcers formed in the throat while the patient was applying a strong solution of the Nitrate of Silver to the part affected, three times a day. These ulcers were cured, and the disease greatly relieved by the substitution of a solution of Sulphate of Copper. But I need not pursue this subject of treatment, which is so familiar to you all, and will therefore proceed without further remark to the special object of this paper.

It will be recollected by some of the members present, that several months ago I invited the attention of the Society, verbally, to the use of Iodine as a topical application to the internal throat, in this disease. I had at that time only a limited experience with the remedy, but had witnessed remarkable effects from its use in several cases. And now, after some further trials by myself and others, I am so far confirmed in my favorable opinion of the remedy, as to feel myself called upon by a sense of duty to the profession, to this Society, and to mankind, to direct your attention to the subject in a more formal manner.

Having been in the constant use of this remedy in my practice for more than a year, and having succeeded in relieving several cases of Chronic Pharyngitis with it, which had resisted the use of other active means of cure, I now venture to recommend it as a valuable remedy, and to request the members of this Society to put its merits to the test of experiment, as they have opportunity, and to report the result to the Society.

The preparation which I have generally used is one of the solutions of Lugol, consisting of Iodide of Potash ℥ i, Iodine ℥ ss, and water ℨ i, to which I generally add half an ounce of simple syrup. In obstinate cases of long standing, the Iodine in this solution may be doubled in quantity, but in most of the cases for which I have prescribed the re-

medy, the above proportions have proved sufficiently active. It is applied to the throat as extensively as possible, by meaus of a large camel's hair brush. This is easily done by an assistant, while the root of the tongue is depressed with a spoon handle; or the patient, after a little practice, may readily apply it himself. It allays titilation and coughing, and the application should be repeated as often as these symptoms become troublesome, whether by day or by night.

The same solution is a valuable application for the external meatus of the ears, but for this purpose glycarine should be substituted for the syrup.

IV.—REPORT ON THE MEDICAL BOTANY OF THE STATE OF LOUISIANA.

BY JOSIAH HALE, M. D.

The undersigned, Chairman of the Committee appointed by the Louisiana State Medical Society, at the annual meeting in March, 1851, "On the Botany and Natural History of this and the adjoining States," begs leave to report as follows:

Your Committee, in discharge of a part of the duty assigned them, present a catalogue of indiginous, naturalized, and a portion of the cultivated plants growing in this State, that have been employed in medicine, together with some observations on their medical properties.

DIVISION 1—POLYPETALOUS, EXOGYNOUS PLANTS.

Order, Ranunculaceæ. (Crowfoot Family.)

Many plants of this order have been employed in medicine, but with few exceptions they are now neglected. They generally contain an acrid principle, which is readily destroyed by heat, or is dissipated by drying.

Clematis cylindrica, L. C. reticulata, Walt. C. Virginica, L. (Virgin's Bower.)

These are climbing, shrubby plants; they possess the general properties of the order, and the two last have been employed in medicine. Diaphoretic and diuretic.

Anemone Caroliniana, Walt. (Wind-flower.) Acrid, rubifacient.

Hepatica triloba, Choix. (Liverwort.) Demulcent and slightly astringent. Grows in St. Tammany.

Ranunculus sceleratus, L. (Butter-cup.) In the fresh state very acrid, producing blisters with as much promptness as Spanish flies; when dry, inert. Several other species are natives of this State, some of which possess properties similar to the above.

Thalictricum dioicum, L. T. Cornutii, L. (Meadow Rue.) The roots deemed useful for snake bites. Raf.

Order, Magnoliaceæ. (Magnolia Family.)

The plants of this order, natives of this State, are all trees; several of them remarkable for the size of their leaves, and the magnitude and fragrance of their flowers.

Magnolia Macrophylla, M. (Umbrella tree.) A rather small tree; leaves deciduous, large, occasionally 36 inches long by 12 in breadth. Flowers large, fragrant, the petals 8 inches long by 3 wide.

Magnolia cordata, M. (Cucumber tree.) Leaves deciduous. M. grandiflora, L. (Large-flowered magnolia.) Leaves perennial, coriaceous, dark green shining above. M. glauca, L. (Swamp Laurel.) A small tree; leaves evergreen, flowers very fragrant. The medical properties of all our species are identical, and may, therefore, be employed indifferently.

The bark of the Magnolia is a tonic bitter of considerable power; it was in use among the Indians as a remedy for autumnal fevers and rheumatism, and has proved beneficial in the hands of regular practitioners in the treatment of remittents having a typhoid character. The cones and seeds are likewise employed to make a tincture, which is a popular remedy in the treatment of chronic rheumatism, and a prophylactic against intermittent fevers. Wood.

Leriodendron tulipifera, L. (Poplar.) The bark is simply bitter and tonic, containing a small proportion of an aromatic property, and an essential oil. It has been found by Dr. Emmet to contain a new principle, supposed to be analogous to camphor. The bark of the Tulip tree closely resembles that of Magnolia in its medical properties, but is less aromatic, and more stimulant. In warm decoction it acts as a sudorific, and sometimes as a diuretic. Griff.

Illicium Floridianum, Ellis. A handsome evergreen shrub. Bark and leaves aromatic. Deserves attention. Grows in damp soil; Covington.

Order, Annonaceæ. (Popaw Family.)

Uvaria triloba, Tor. and Gr. (Popaw.) The succulent fruit is edi-

ble and much esteemed by those accustomed to it. A beer is made from it. The seeds, eaten by children, have proved actively emetic. The bark, by masceration, is capable of being manufactured into ropes, Russia mats, etc. Grows abundantly in Rapides, and other parts of the State. Alluvial soil.

U. parviflora, T. and G., and U. abovata, T. and G., are small shrubs, in dry, sandy soil.

Order, Schizandraceæ. (Schizandra Family.)

Schizandra coccinea, M. A climbing shrub, with thick, soft, slightly pungent and aromatic bark; used in domestic practice as a substitute for sarsaparilla, the name of which it bears in some parts of the country.

Order, Menispermaceæ. (Moonseed Family.)

Coculus Carolinianus, D. C. Sometimes called Sarsaparilla, and used as a substitute for it. Bitter, tonic.

Menispermum Lyonii, Ph. Moonseed Root. Bitter, tonic.

Order, Berberidaceæ. (Bearberry Family.)

Podophyllum peltatum, L. (May Apple.) Grows in fertile hills; fruit edible. The root was in common use among the Indians before the settlement of the country by the whites, and was considered by them as one of their most powerful purgatives. (Grif.) In the hands of physicians it has proved to be a certain and safe cathartic, rather more drastic than Jalap. It is sometime harsh in its operation, giving rise to tormina and profuse discharges. (Carson.) Combined with cream of tartar it forms an admirable hydrogogue cathartic. Dose of the root in powder, 10—20 grains. It has been used externally as an escharotic to indolent ulcers. Besides resin and the usual constituents, it abounds in a peculiar principle called podophilline, which belongs to the same group with salicine and populine. The peculiar properties of the root are probably due to this principle, and to the resin.

Order, Cabombaceæ. (Watershield Family.)

Brasenia peltata. Ph. Abundant in ponds, frequently covering whole acres of their surface with its floating leaves. The jelly with which the under surface of the leaves is thickly coated, is a pure mucilage, similar to that of lichen; plant sub-astringent. (Raf.)

Order, Nelumbiaceæ. (Nelumbo Family.)

Nelumbium luteum, Willd. (Water Chinquepin—Wancopin.) This magnificent aquatic grows in ponds and lakes, in most parts of the

State. It is remarkable for the size and fragrance of its flowers, and the dimensions of its large peltale leaves, which frequently exceed two feet in diameter. They have the property of repelling water, when thrown on their surface, giving to small portions a spheroidal form. The roots are said by Nuttall to resemble the sweet potato in taste, and are a favorite article of food among the Osage and other Western tribes of Indians. The nuts, which are about the size of chinquepins, resemble them in taste. The leaves are cooling, and form a good dressing for blistered surfaces. (Griff.)

Order, Nymphaceæ. (Water Lily Family.)

Nymphœa odorata, Ait. (White Water Lilly.) Leaves floating, roots large and fleshy. Used as a popular remedy in bowel complaints. They contain, according to Bigelow, tannin and gallic acid.

Nuphar lutea, Smith. (Yellow Water Lilly.) Medical properties similar to Nymphœa, but weaker. The roots, rubbed or bruised with milk, are said to destroy cockroaches and crickets.

Order, Sarraceniaceæ. (Pitcher Plants.)

Sarracenia flava, L. (Yellow flowered Side Saddle.) Leaves one to two feet long; half full of water and dead insects. According to Dr. Porcher, the root has long been used as a domestic remedy by the inhabitants of the lower portions of South Carolina. From his observations and experiments, it appears to be a stimulant and tonic, with a tendency to act on the brain, and is probably well suited to cases of dyspepsia, dependent on debility of the stomach. Prof. Shepherd found the root to contain, besides resin and other matters, an acid salt of lime, and a salt probably of an organic alkali. Grows in wet pine woods. (Wood.)

S. purpurea, L. (Purple flowered Side Saddle.) Tubes usually half full of water and dead insects. Properties, probably similar to the above. Damp soil, Covington.

Order Papaveraceæ. (Poppy Family.)

Papver somniferum, L. (Poppy.) The opium bearing poppy is a native of the warmer parts of Asia, but is naturalized in almost all parts of the world, and might, perhaps, be brought to yield opium in this country in sufficient quantity to repay the labor of cultivation.

Argemone Mexicana, L. (Prickly Poppy.) The whole plant exudes an acrid, milky juice, which on exposure to the air becomes concrete like gamboge. Is found of service in chronic diseases of the skin.

In Brazil and India, the expressed oil of the seeds is regarded as a purgative not unlike castor oil, but more active, thirty drops being equal to an ounce of castor oil. It operates without griping.

Sanguinaria Canadensis, L. (Puccoon, Blood-root.) Grows in the North-west portion of the State. The whole plant is pervaded by an orange colored juice, most abundant in the root. Dr. Dana has shown that sanguinaria owes its medical properties to an alcaloid principle, which he has called sanguinarina. It is extremely acrid, and possesses the properties of an alkali. Sanguinaria has been advantageously administered in many diseases of the lungs, and has been recommended in rheumatism and diseases of the liver. The dose of the powdered root, as an emetic, is 10—20 grains; as a diaphoretic and expectorant 3—5. Externally, the decoction has been found useful as a wash for ill-conditioned ulcers. The powdered root is also an efficient escharotic.

Order Fumariaceæ. (Fumitory Family.)

Corydalis aurea, Willd. Corydalis glauca, Ph. (Fumitory.) Diuretic and diaphoretic.

Order Cruciferæ. (Mustard Family.)

This is a vast and very natural family of plants, all the species composing it being closely allied in structure and properties. They are all more or less acrid and pungent. In some of them this acrid principle is in union with a considerable quantity of mucilage, when they become useful articles of food. The acridity depends on a volatile oil, which is dissipated by heat. A very large number of our culinary vegetables and condiments are derived from this class, as all the varieties of Cabbage, the Turnip, Mustard, Horse Radish, Cress, etc. Several of our indigenous species are esteemed as salads, as Cardemine rotundifolia, M.; C. Virginica, L.; C. Ludoviciana, Hook; Seuebria pinnatifidia, D. C.; Lepedium Virginicum, L., etc. They are all valuable antiscorbutics.

As medical agents they are of little importance, though from the pungency of the volatile oil contained in some of them, they are frequently employed as external stimulants, and sometimes administered internally to excite the intestinal canal. (Grif.)

Order, Violaceæ. (Violet Family.)

Viola pedata, L. Foot Violet. This species is remarkable for the size and beauty of its flowers, which are usually bright blue, in some varieties pale blue, and even white; one variety has the two lower

petals dark purple. The root has been employed as a demulcent and expectorant.

Viola odorata, L. (Fragrant Violet.) A native of Europe, but naturalized in some places in this country. It is cultivated in every garden for the delightful odor of its flowers. The syrup prepared from this species is demulcent and laxative, and is of great value to the chemist in the detection of acids and alkalies. The root is emetic and cathartic, in about the same doses as Ipecac, for which it has been proposed as a substitute, but is less certain in its operation. It owes this property to a principle called *violine*, closely allied to *emetine* in composition and action.

V. tricolor, L., and V. arvensis, Ell., (Heart's Ease) are said to be possessed of efficacy in the treatment of cutaneous diseases, especially *crustea lactea.*

V. palmata, L. A variable species; one variety with flowers of bright purple, and fragrant.

This violet is very mucilaginous, and much used by the negroes in their soups. In domestic practice the bruised leaves are employed as an emollient application. (Ell.) Grows in shady woods.

V. primulæfolia, L. Flowers white, fragrant.

V. lanceolata, L. Flowers white. Grows in wet places, about springs, etc.

Order, Hypericaceæ. (St. Johnswort Family.)

A numerous family of herbs, or handsome shrubs, (with us) having a resinous juice, variously and capriciously dotted with glands, leaves opposite entire, capriciously dotted with immersed, pellucid, resinous glands, and often (as also the sepals and petals) sprinkled with black glandular dots or lines, Torr. and Gr.

Most of the plants of this order exhale, when bruised, a peculiar balsamic odor. The Indians frequently carry a handful of the Hypericam Sarothra for days together, on account of the pleasant odor. All our species of St. Johnswort possess medicinal properties in a greater or less degree. Several of them were formerly employed as remedies for intermittent fever, and a long array of other maladies, but they are at present principally confined to domestic practice. Our genera are, Ascyrium, St. Peterswort; Hypericum, St. Johnswort; and Elodea, Marsh St. Johnswort.

Order, Portulaceæ. (Purslane Family.)

Portulaca oleracea, L. Purslane; naturalized. A cooling diuretic, used in scurvy and affections of the urinary organs. (Wood.)

Order, Malvaceæ. (Mallow Family.)

Our indigenous plants of this large order are all herbaceous. Their general character is that of abounding in mucilage, and being destitute of any unwholesome properties.

Malva Caroliniana, L. (Guimauve.) Very common. From the great quantity of mucilage it contains, is used in bowel affections. It forms an excellent cataplasm in external inflammation.

M. papaver, Nutt. (Poppy Mallow.) Remarkable for the size and beauty of its flowers. Properties, in a slight degree, those of the order.

Hibiscus incanus, L., and many others, are mucilaginous.

H. esculentus (Okra). Introduced from Africa. Cultivated and highly esteemed as a culinary vegetable. It abounds in mucilage, and may be employed medicinally in all cases requiring demulcents and emollients.

Gossypium album, Ham. (White-seed Cotton—Mexican Cotton.) G. nigrum, Ham. (Black-seed Cotton—Sea Island Cotton.) It is probable these are the only original species of this very important genus, the numerous varieties being the effect of cultivation. Dr. F. P. Porcher (Transactions American Medical Association, II. p. 721) remarks, "Much use is made of the roots of the cotton in this State, (South Carolina) in the treatment of asthma, a decoction being employed. It appears, moreover, to have a specific effect on the uterine organs. Dr. Ready informs us that his attention was first called to its emenagogue properties by an article in the New Orleans Medical Journal, some years since. He has since used it in suppression of the menses, but more particularly in many cases of flooding, with entire success. It seems to produce as active a contraction of the uterus as ergot itself. Three ounces of the root are infused in a pint of boiling water, of which three or four ounces are taken internally every fifteen minutes." The cotton-wool, when carded, or what is better, fresh from the receiving room, forms an excellent application to burns and scalds, and has been recommended as a dressing to blisters, when it is wished to dry them rapidly.

Order Tiliaceæ. (Linden Family.)

Tilia Americana, L. (Linden, Bass-wood.) The inner bark of this tree affords a rich mucilage on masceration in cold water, which forms a soothing application to irritable surfaces. (Williams.)

Order Meliaceæ. (Melia Family.)

Melia azedarach, L. (China Tree.) This beautiful shade tree,

common throughout the Southern States, is one of our most valuable anthelmentics. It is also of service in those infantile remittents which resemble verminose, and which frequently occur without the presence of worms. A decoction is made by boiling four ounces of the fresh bark of the root in a quart of water, to a pint; of this a table spoonful is to be given every two or three hours, till it affects the stomach or bowels; it should be followed by a brisk cathartic.

Order, Oxalidaceæ. (Wood Sorrell Family.)

Oxalis violacea, L.; O. stricta, L.; O. corniculata, L.— (Wood Sorrel.) All our species of sorrel possess an agreeable acid, dependent on the quantity of binoxalate of potassa they contain. Used to form a cooling drink in febrile complaints.

Order, Balsaminaceæ. (Balsam Family.)

"Impatiens fulva, Nutt. (Touchmenot.) The whole plant is acrid, and is used as a cataplasm." Taken internally it acts as an emetic, cathartic and diuretic. (U. S. Disp.) Flowers used in dying yellow.

I. Balsamina (Touchmenot,) of the gardens, an exotic, resembles the last in its properties.

Order, Zanthoxyllaceae. (Prickly Ash Family.)

Zanthoxyllum Carolinianum, L. (Prickly Ash.) Bark aromatic and pungent, a powerful stomachic and diaphoretic; used in chronic rheumatism; dose, in powder, 10—20 grains.

Ptelea trifoliata, L. (Three leaved Ptelea.) A large shrub, said by Schœpf to be anthelmintic, for which purpose the leaves and young shoots are used in strong infusion. The fruit is aromatic and bitter, and is stated to be a good substitute for hops. (Grif. Med. Bot.)

Order, Anacardiaceæ. (Cashew Family.)

Trees or shrubs having a resinous, gummy, or milky caustic juice, which in some of them turns black, and is used for varnishes.

Rhus radicans, L. (Poison Vine.) Grows in fertile soil, climbing trees, etc.

R. toxicodendron, L. (Poison Oak.) Erect, one foot high, grows in dry, sandy soil.

These species, possessing similar properties, were known to the Indians both as poisons and medical agents. The poison oak has been employed in paralysis, in which it appears to act like nux vomica, but not with equal power.

R. vermix, L. Grows about springs, etc. Poisonous properties exceedingly active.

R. glabra, L. R. typhina, L. R. copallina, L. (Sumach.) The crimson berries of the three last named species, when mature, are covered with an acid efflorescence, and have a sour, astringent taste, which they readily impart to cold water, forming an agreeable drink in febrile complaints. The bark of the root has been highly recommended as a wash in salivation; the leaves are employed in tanning Morocco leather, etc. They are smoked by the Indians, either alone or mixed with tobacco.

Order Aceraceæ, (Maple Family.)

Acer saccharinum, L. (Sugar Maple.) Rubrum, L. (Red Maple.) Drummondii, Hook and Arn. (Swamp Maple.) All yield sugar. Negundo aceroides, Mœnch. (Box Elder.) Yields sugar.

Order Hypocastanaceæ. (Horse Chestnut Family.)

Æsculus Pavia, L. (Buckeye.) A handsome flowering shrub, sometimes attaining the size of a small tree. The bark, among other ingredients, contains galic acid and tannin, and imparts its properties to boiling water. It has been employed as a substitute for Peruvian bark, in the cure of intermittents. The fruit yields the finest starch, esteemed for its pure and durable whiteness; a strong paste may be made of it, which is avoided by insects; the roots are used for washing and whitening woollens, silks, etc.

Order Sapindaceæ. (Soap-berry Family.)

Sapindus marginatus, Willd. (Soap-berry tree.) Fruit saponaceous; said to be rather corrosive.

Cardiospermum Halicacabum, L. (Heart-seed, Bladdernutt.) The root is aperient. (Ainslie.)

Order, Celastraceæ. (Spindletree Family.)

Euonymus atropurpureus, Jay. (Burning bush.) A shrub of rather striking appearance, especially in winter, from the scarlet color of the fruit, and inverted capsules, whence the name of Burning bush. Cathartic and diuretic; requires investigation.

Order, Rhamnaceæ. (Buckthorn Family.)

Berchemia volubilis, D. C. (Souple Jack.) A climbing shrub, in moist woods; root used in cachetic diseases; said to be antisyphilitic. (Lind.)

Rhamnus Carolineanus, Walt. A shrub or small tree. Properties probably similar to those of R. catharticus. Vide Wood and Bache's Disp.

Ceanothus Americanus, L. (Red Root.) A small shrub, very common; the bark of the root imparts a red color to water; astringent. Used advantageously in diarrhœa of children.

Order, Vitaceæ. (Vine Family.)

Vitis labrusca, L. (Fox Grape.) V. blanda, Raf. (Raisin de Cote—Pine-woods Grape.) V. æstivalis, M. (Summer Grape.) V. cordifolia, M. (Winter Grape.) V. rotundifolia, M. (Muscadine, Scuppernong.) The cultivated varieties of several of our indigenous species are much esteemed as table grapes, and for making wine. Besides their use as an article of diet, grapes have been prescribed medicinally; they are antiseptic and cooling, and when partaken of freely are somewhat diuretic and laxative.

Wine is the most important product of the vine. Grape sugar differs from every other kind of sugar in containing a less quantity of carbon. The acid of the grape is chiefly the tartaric; malic acid, however, is contained in them.

Order, Polygalaceæ. (Milkwort Family.)

Polygala pubescens, Muhl, Covington. P. polygama, Walt. P. purpurea, L. P. sanguinea, T. and G. P. cruciata, L. P. lutea, L. P. Nana, D. C. P. Cymosa, Walt. P. grandiflora, T. and G. P. incarnata, Muhl. P. verticillata. P. ambigua, Nutt. P. leptocaulis, T. and G. These are, for the most part, small annual plants, the two first only being perennial; they all possess the properties of the P. senega, and may be substituted for it. The fresh root has a feeble but peculiar odor, and a bitter, slightly acid taste. It is a stimulant of a very searching nature; hence the impropriety of employing it in inflammatory diseases, as croup, pleurisy, etc., before the acute stage has been subdued.

Order, Leguminosæ. (Pulse Family.)

This extensive family is composed of trees, shrubs and herbs.

Erithrina herbacea, L. (Coral Flower.) Roots sudorific, flowers pectoral; very ornamental. Raf.

Apios tuberosa, Mœnch. (Indian Potatoe.) Climbing; flowers in crowded racomes, sweet scented, roots tuberous, farinaceous, and edible. In wet places.

Baptisia lanceolata, Ell.; B. leucophœa, Nutt.; B. leucantha, T. and G.;

B. australis, R. Br. (Wild Indigo.) The wild indigo has been used with benefit, as an external application, in mercurial sore mouth; also in foul and gangrenous ulcers, correcting the vitiated discharges, and checking the progress of mortification.

Indigofera tinctoria, L. (Indigo.) Formerly cultivated in parts of this State, for the well known product *Indigo*, the process of preparing which was known to the aborigines, before the discovery. Employed as an astringent in immoderate discharges of the lochia, and more recently in spasmodic diseases, especially epilepsy, but it appears, in reality, to be possessed of very little power.

Indigofera Caroliniana, Walt. (Wild Indigo.) A beautiful perennial species, growing in dry soil. Properties similar to the last.

Rabinia Pseudoacacia, L. (Black Locust.) The flowers possess antispasmodic properties, and make an agreeable syrup. The bark of the root is sweetish; both cathartic and emetic.

Tephrosia Virginica, Pers. (Turkey Pea.) The roots were used by the Indians as a vermifuge, before the settlement of the country by the whites, and are a popular remedy at the present time. (Grif.)

T. onobrychoides, Nutt.; T. hispida, Ph.; T. spicata, T. and G. These are all deserving attention.

Cassia Marilandica, L. (American Senna.) A rather showy plant, growing in fertile soil. An active and certain cathartic, but little if at all inferior to the foreign senna. The leaves should be gathered when the fruit is nearly ripe.

C. occidentalis, L.; [Coffee Weed] C. obtusifolia, L.; C. chamæcrista, L.; nictitans. These appear to possess more or less active properties.

Order, Rosaceæ. [Rose Family.]

The plants of this order are herbaceous or shrubby; none of them bear poisonous fruits. "The roses are astringent, the spireæ emetic, and the amygdalæ sedative." [Carson.]

Cerasus serotina, D. C. [Wild Cherry.] The wild cherry frequently grows to the size of a large tree; the wood is valuable; the fruit eatable; the bark yields gum; and the leaves, bark and kernels yield tannin and amygdalin. [Carson.] It is one of our most valuable indigenous remedies, uniting, with a tonic power, the property of calming nervous excitability. It is admirably adapted to the treatment of diseases in which a debilitated condition of the stomach or of the system is united with general or local irritation. It may be used in infusion or in powder. Dose of the latter, ʒ ss— ʒ i. [Wood.]

C. Virginiana, L. [Wild Cherry.] Properties similar in all respects to the last.

C. Caroliniana, M. [Laurier Amand.] Probably the most efficient of our species of Cerasus. The leaves are poisonous, frequently destroying cattle that feed upon them.

Gillinia stipulacea, Nutt. [Indian Physic.] The root is a mild and efficient emetic. Dose, in powder, 20—30 grs.

Geum Virginicum, L. Tonic and astringent ; used in leuchorea and in diarrhœa.

Agrimonia Eupatoria, L. [Agrimony.] Has a weak but agreeable aromatic odor, is a mild astringent and tonic ; said to have been employed by the Indians and Canadians as a febrifuge; useful in diarrhœa, etc., and in passive hemorrhage.

A. parviflora, Ait. Properties similar to the last.

Potentilla Canadensis, L. [Cinquefoil]. Var. Simplex, T. and G. A mild astringent.

Fragaria Virginiana, Ehr. [Strawberry.] Strawberries are refrigerant, diaphoretic, pectoral and astringent. They have been used in consumption, gout, scurvy and gravel. The root is bitter, astringent and tonic ; beneficial in hemorrhages, etc.

Rubus villosus, Ait. [Blackberry.] R. trivialis, M. [Low-bush-Blackberry.) R. Hispidus, L. [Dewberry.] All perennial; possess the same properties.

Blackberry root is an efficient astringent, though not of great power, and has been found exceedingly useful in bowel complaints, especially in the cholera of children. [Grif.] It should be given in decoction, an ounce of the root to a pint of water, of which the dose for a child is two or three tea spoonsful, and for an adult a wine glassful.

The fruit is relished, and agrees well with most persons ; is found beneficial in dysentery, especially in the form of jam or syrup. It is exceedingly grateful to the patient, and often relieves the painful tenesmus so constantly an attendant of the complaint. [Grif.]

Order, Lythraceæ. [Loosestrife Family.]

Lythum alatum, Ph.; L. lanceolatum, Ell. (Slender Loosestrife.) Elegant perennial plants, with quadrangular stems and blue flowers, in long terminal spikes. Demulcent and astringent.

Order, Onagraceæ. [Evening Primrose Family.]

Œnothera biennis, L. [Evening Primrose.] Mucilaginous and

slightly acrid. Employed in decoction with benefit, by Dr. Griffith, in obstinate cutaneous complaints.

Order, Cactaceæ. [Cactus Family.]

Opuntia vulgaris, Nutt. [Prickly Pear.] Young leaves eaten by negroes like *okra;* split leaves; good topical emollient for acute rheumatism; baked for chronic ulcers and wounds. The juice and gum used for the gravel. [Raf.]

Order, Passifloraceæ. [Passion Flower Family.]

Passiflora incarnata, L. [May Apple.] Fruit edible, of an agreeable acid taste.

P. lutea, L. Fruit small; dark purple. Several species of this genus are employed in medicine, and these appear worthy of investigation.

Order, Cucurbitaceæ. [Gourd Family.]

Bryonia Boykinii, T. and G. Stem twining over bushes, etc. Fruit half an inch long; bright crimson; root tuberose. Several species of Bryony possess active medicinal properties.

Sicyos angulata, L. [Prickly Cucumber.] Roots and seeds bitter, purgative and diuretic. [Raf.]

Melothrea pendula, L. [Creeping Cucumber.] Stem slender; climbing; fruit the size of a pea; black when ripe. Used in the West Indies as a pickle, when green. It is extremely drastic when mature; half a one being a dose for an adult.

Order, Saxifragaceæ. [Saxifrage Family.]

Huchera Americana, L. [Alum Root.] Root powerfully astringent; was in use among the aborigines as a styptic, and an application to ulcers; may be used wherever an astringent is indicated.

Itea Virginica, L. A shrub, bearing racemes of beautiful white flowers. Employed as a domestic remedy for intermittents; it has also been used in chorea.

Hydrangea arborescens, L. [Tree Hydrangea.] H. Quercifolia, Bartram, [Oak-leaved Hydrangea.] Dr. Griffith found the leaves tonic, sialagogue, cathartic and diuretic. [Raf.]

Decumaria barbarea, L. [Sugar Vine.] A climbing shrub, frequently ascending tall trees, adhering by means of radicles. The sap, which in early spring is yielded abundantly from incisions, contains sugar in considerable quantity.

Hamamelis Virginiana, L. [Witch Hazel.] A large shrub remarkable for flowering late in autumn, and maturing the fruit of the previous year, at the same season. The bark has been used as an external application in painful affections, tumors, etc., in the form of poultice and decoction ; also in painful hemorrhoidal affections.

Order Umbelliferæ. [Parsley Family.]

The properties of this vast and important tribe of plants differ widely, according to the part of the plant considered ; whether the vegetation or the fructification. The character of the former is generally suspicious, and often poisonous in a high degree, as the Hemlock, Fool's Parsley, etc. Nevertheless, the stems of the Celery, especially when etiolated, and the roots of the Carrot and Parsnip, are wholesome articles of food. The fruit, commonly called the seed, is in no case dangerous, and is generally a warm and agreeable aromatic.

Sanicula Marilandica, L. [Sanicle.] Useful in leuchorea, gonorrhœa and dysentery. (Raf.)

Eryngium aquaticum, L. E. Virginicum, L. (Button Snakeroot.) These species possess similar properties. The root has a bitter, pungent, aromatic taste, provoking, when chewed, a copious flow of saliva. Diaphoretic and expectorant, and in large doses occasionally emetic. Used by some physicians as a substitute for senega. [Bigelow.]

Cicuta maculata, L. [Water Hemlock.] Grows in wet places ; one of the most poisonous of our indigenous plants. The whole plant in the fresh state is poisonous, but the leaves and stem become inocuous on drying. The root, however, is the most active, and the cortical portion contains a viscid, yellow juice. When taken in any quantity, the Cicuta causes all the symptoms of the acronarcotics. It has been used as a sedative to alleviate pain in schirrus and cancer.

Thaspium cordatum, Nutt. Vulnerary, antisyphilitic, sudorific; antidote for rattlesnakes. [Raf.]

Order Araliaceæ. [Spikenard Family.]

Aralia spinosa, L. [Angelica Tree, Prickly Elder.] A large shrub, growing in fertile woods. The inner bark is yellowish, of a slightly aromatic odor, and bitter, astringent taste. It was in use among the Indians for dropsy, cholic, syphilis and chronic rheumatism ; they gave it in decoction. It is stimulant and diaphoretic, and in the recent state, emetic and cathartic ; used in chronic rheumatism and in cutaneous eruptions. A spirituous or vinous tincture of the berries, said to be

efficacious in relieving rheumatic pains. The bark is most commonly administered in decoction.

Order Cornaceæ. [Dogwood Family.]

Cornus Florida, L. [Dogwood.] The bark is tonic, astringent and somewhat stimulant, and is probably the best native substitute for the cinchona.

C. Paniculata, Lam. C. Strica, Lam. C. Sericea, L. [Swamp Dogwood.] These possess similar properties to the C. Florida, and are frequently substituted for it.

DIVISION II. MONOPETALOUS EXOGENOUS PLANTS.

Order, Caprifoliaceae. [Honeysuckle Family.]

Symphoricarpus vul. M. [Indian Currant.] A small, elegant shrub, with dark red persistent berries. The root is tonic, astringent, and in small doses an active febrifuge; used for agues in Virginia; for syphilis by the western tribes of Indians. [Raf.]

Lonicera sempervirens, Ait. [Coral Honeysuckle.] A beautiful evergreen, climbing shrub, flowering in April, and in cultivation throughout the summer; leaves and flowers bitterish, mucilaginous and detersive. A syrup used for sore throat, irritation of the lungs, etc. [Raf.]

L. grata, Ait. [Honeysuckle.] Flowers fragrant; medical properties similar to the last.

Sambucus Canadensis, L. [Elder.] The bark of the root is an active hydrogogue cathartic, and in large doses emetic; the flowers are sudorific; the juice of the berries, diluted with water, forms an agreeable laxative drink, in rheumatism, etc.

Viburnum prunifolium, L. [Black Haw.] Fruit sweetish, edible; Bark astringent, tonic.

V. acerifolium, L. V. dentatum, L., and var. V. obovatum, T. and G. Bark of many species smoked like tobacco by the Western tribes; used by the Indians and Shakers as a diuretic. [Raf.]

Triosteum angustifolium, L. [Feverwort.] Grows in fertile, shady places. It probably has the same properties as T. perfoliatum, T. and G. Grif. Med. Bot.

Order Rubiaceae. [Madder Family.]

A genus, with us, of herbaceous plants, with square stems and verticellate leaves.

Galium aperine, L. [Bedstraw.] Diuretic, aperient and antiscorbutic. [Porcher.]

G. asprellum, M. [Rough Bedstraw.] Diuretic.

G. uniflorum, M. [One flowered Bedstraw.] The root contains a red coloring matter.

G. circæzans, M. [Wild Liquorice.] Demulcent, expectorant and diuretic. The roots taste like liquorice. [Riddell.]

G. pilosum, Ait. [Hairy Bedstraw.] G. triflorum, M. [Three flowered Bedstraw.] G. trifidum, L. [Small Clevers.] G. virgatum, Nutt.

Sub-order, Cinchonaceae. [Cinchona Family.]

Cephalanthus occidentalis, L. [Button-bush.] A shrub 2-15 feet high; grows on the margins of ponds, etc.; very common. Bark of the root in decoction used as a domestic remedy in intermittents. Beneficial in obstinate coughs. It was in use among the aborigines.

Mitchella repens, L. [Partridge-berry.] A beautiful little prostrate evergreen plant, in shady woods, bearing fragrant white flowers, in pairs, and scarlet berries, which it often retains throughout the winter. Diuretic.

Spigelia Marilandica, L. [Carolina Pinkroot.] Pinkroot is a certain and powerful anthelmintic; it possesses narcotic, and to some extent, cathartic properties. Pinkroot deteriorates rapidly on keeping, and should be used fresh; fortunately, this may generally be done, as the plant grows abundantly throughout the State. The infusion is the best form of administration.

Order, Compositae. [Composite Family.]

This is one of the most natural and extensive orders of the vegetable kingdom, consisting of one tenth of the known plants. It is readily known by the flowers being collected into heads, and the stamens united in a tube. In proportion to the vast number of species, the useful ones are few. Their general characteristics are bitterness and astringency, but their properties, often, vary widely.

Vernonia naveboracensis, Willd.; [Iron Weed] and several other species, all possessing similar properties; a bitter, combined with a resinous principle; a spirituous tincture is made of the root and used for fevers, in Kentucky. [Raf.] Used against poisons, [Schœpf] used by the negroes of South Carolina in snake bite.

Elephantopus Caroliniana, Willd. [Elephant's Foot.] Fertile soil.

E. tomentosa, L. Dry soil.

E. scaber, L. Flowers sept. Wet pine woods; properties very similar to those of vernonia. A decoction of the leaves and roots of E. scaber is given on the Malabar coast, in cases of dysuria [Ainslie]; and in Brazil, according to Martius, the root is used in intermittent fevers.

The root of E. tomentosa is an Indian remedy for snake bite, and has been employed in popular practice with apparent benefit.

Liatris elegans, Willd. L. squarrosa, Willd. L. accidota, Eng. and Gr. L. pycnostachya, T. and G. L. scariosa, Willd. [Button Snake-root.]

Several of these species are elegant plants; the heads of purple flowers are arranged on the simple stem, in long spikes, or racemes. The root is a naked tuber, endued with a terebinthinate substance; it has an acrid, bitterish, pungent taste, and an aromatic odor. The active qualities are wholly given out to alcohol. The Indians used the roots as a diuretic; stimulant, carminative and diaphoretic. [Riddell.] The plants of this genus merit investigation at the hands of physicians.

L. odoratissima, M. [Vanilla leaf.] The leaves, when bruised, or wilted, exhale a strong odor of vanilla, which, in a dry state, they retain for many years. The leaves are frequently brought to market in New Orleans, in a fresh state, by the Indians.

Eupatorium perfoliatum, L. [Boneset.] This is one of the most valuable articles of our indigenous Materia Medica, being an efficacious remedy in the treatment of diseases common in this country. It was in use among the Choctaw and other Southern Indians, for the cure of intermittent fevers. From them the early settlers derived a knowledge of its virtues.

The remedial properties of Boneset are various; it is tonic, diaphoretic, emetic, and in large doses aperient; as a tonic, it is well suited to cases of dyspepsia, and want of tone in the system, requiring the use of simple bitters; for this purpose the infusion is the best form of exhibition. In various forms of fever it is of considerable efficacy; but in intermittents, its diaphoretic properties are of the greatest force; given in warm infusion, before the accession of the chill, it rarely fails to prevent the paroxysm. In catarrh, its remedial powers are valuable. As an emetic it is equal, but in no respects superior to Camomile. As a cathartic it has been employed in bilious colic, accompanied with obstinate constipation, in the dose of a tea spoonful of the powder every half hour until a cathartic effect is produced.

More than a dozen other species of Eupatorium are indigenous to the

State, most of which, no doubt, possess similar properties to the above.

Eupatorium purpureum, L. [Gravel-root.] This is a large, coarse, weed-like plant, 10-12 feet high, with a purple, hollow stem, and large leaves, disposed in whirls. Diuretic; used in diseases of the kidneys and bladder. Dr. Eberlee asserts that catarrhal fevers are cured by drinking a weak infusion of the leaves, on going to bed.

Conoclinum Cœlestinum, D. C. Flowers blue, Habit, and probably medical properties similar to Boneset, with which it was formerly classed.

Aster. [Starwort.] A numerous genus of rather ornamental plants, chiefly interesting on account of their flowering late in autumn, when most other flowers have disappeared. Several of them, as A. cordifolius, A. punicens, etc., which have aromatic roots, are said to be antispasmodic.

Erigeron Canadensis, L. [Canada Fleebane, Horseweed.] This species of erigeron has an agreeable odor, and bitterish, acrid, somewhat astringent taste. Among its constituents, according to Dr. De Puy, are bitter extractive, tannic and gallic acid, and a volatile oil. Diuretic tonic, and astringent. It has been found useful in dropsical complaints and in diarrhœa. U. S. Disp.

E. divaricatus, M. A small, branching species, belonging to the same subdivision of the genus as the last; and probably possesses similar properties.

E. annuum, Pers. E. Bellidifolium, Muhl. E. quercifolium. E. venosum, T. and G. E. tenue, T. & G. The five last named species of Fleebane are, no doubt, identical in their medical properties, and may, therefore, be employed indifferently, one for another. When bruised they have a peculiar, not unpleasant smell; their taste is bitter and astringent. The most striking property of these plants is their diuretic, for which they have been long employed in domestic practice, and have been found efficacious in the hands of regular practitioners. They have been employed in diseases of the bladder and kidneys, in dropsy, especially of children; also in difficulty of urinating. They agree well with the stomach, even when squills and digitalis are not tolerated. They are diaphoretic and emenagogue, for which purpose they were employed by the Indians. Two or three drops of the oil dissolved in alcohol, have suddenly arrested hemorrhage. In chronic diarrhœ also it is beneficial. [Raf.]

Solidago. [Golden-rod.] An extensive genus of herbaceous, pe-

rennial plants. Flowers yellow, in terminal, axillary and frequently recurved racemes. The general character is mild astringent, combined, in one or two species, with some stimulating qualities, owing to the presense of an essential oil. [Grif.]

Solidage, odora, Ait. [Sweet-scented Golden-rod.] Grows abundantly in pine woods; readily distinguished from all our other species of golden-rod,—about thirty in number,—by its very agreeable odor, resembling aniseed; this is owing to the presence of an essential oil. The oil is used to relieve nausea and vomiting, to allay pain from flatulence, and also to correct the disagreeable taste of medicines, which it is said effectually to do, even that of castor oil and laudanum. The leaves and flowers are used in some portions of the country as a substitute for tea.

S. sempervirens, L. [Evergreen Golden-rod.] Very efficacious in the cure of wounds. [Mer. and De Lens]

Baccharis halimifolia, L. A large evergreen shrub, common near the sea and lake shore; less so in the interior of the State; readily distinguished by its very long white beard (papus). In general use in South Carolina as a palliative, in consumption and cough. It is slightly mucilaginous; a strong decoction of the root may be employed. The bark is said to exude a gum so much resembling honey as to attract bees. [Porcher.]

B. glomerifolia, Pers. Properties similar to the last.

Ecliptica erecta, L. Leaves dye the hair black. [Raf.]

Silphium laciniatum, L. [Turpentine Sunflower.] S. scaberimum. S. astericum, L. These all exude a fine fragrant and bitterish gum, resembling Frankinsense; white or amber colored; chewed by Indians to sweeten the breath and clean the teeth. [Raf.]

Parthenium integrifolium, L. The root is regarded by some as a most valuable diuretic in ischuria. [Riddell.]

Iva fructescens, L. [Bastard Jesuits Bark.] A shrub, growing near the sea and lake shore; also at the salines, parish of Claiborne. Bark, with the odor of Elderflowers, tonic; the leaves may be pickled. [Raf]

Ambrosia artimisifolia, L. [Ragweed.] Emollient and antiseptic. It has been recently employed with success as a popular remedy for piles.

A. trifida, L. Long Prairie, Red River. Var. Palmata, New Orleans.

A plant has been noticed by Dr. Robertson, (American Journal Med.

Science, XII. 382) which appears to be A. trifida, as highly beneficial in arresting excessive salivation. [Grif.]

Xanthium strumarium, L. [Cockleburr.] Subacrid, astringent and diaphoretic; used in scrofula, herpes and erysipelas. [Raf.]

Echinacea purpurea, Mœnch. [Red Sunflower.] Root thick, very pungent to the taste. Used in syphilis by the Mandans. [Raf.]

E. angustifolia, Nutt. [Black Sampson.]

Bidens chrysanthemoides, M. [Spanish-needle.] Three or four other species. The seeds, boiled in water and strained, mixed with honey, form a most excellent expectorant, in whooping cough and other catarrhal affections. [Williams.]

Verbesina Virginica, L. [Virginian Crownbeard.] A valuable sudorific and depurative, of the Indian tribes. Root used in decoction. [Raf.]

Helenium autumnale, L. [Sneeze-weed.] Grows in the Western prairies and some other localities in this State. It has a bitter, slightly pungent taste; tonic and diaphoretic; also a powerful errhine; the entire plant, in powder, possesses this property, but the flowers of the disk possess it in the highest degree.

H. quadridentatum, Ell. Abundant in the commons of New Orleans, and others places.

H. tenufolium, Nutt. Grows on Red River; abundant in the commons of Alexandria. The two last possess the same properties as H. autumnale.

Leptopoda brachypoda, T. and G. L. Helenium Perennial; plants resembling in habit and properties the genus Helenium.

Marata cotula, D. C. [May-weed, Dog Fennel.] Naturalized, in places. This plant has a strong and unpleasant smell, and a bitter, acrid and nauseous taste. It is tonic, diaphoretic and emetic, closely resembling chamomile in its effects, but is more unpleasant to the taste. Externally it is an efficient and safe vesicant. According to Dr. Ashly, bruised and applied in the form of poultice, it vesicates promptly, and the blisters heal readily.

Guaphalium polycephalum. [Life-everlasting.] Possesses a slight aromatic odor, and slightly bitter taste; used as a domestic remedy in the form of tea, in diseases of the chest and bowels, and in hemorrhagic affections. Externally it is applied in the way of fomentation, in bruises and languid tumors.

G. purpureum, L. G. uliginosum, M. G. Plantagineum, Ell. All these possess similar properties to G. polycephalum, and may be sub-

stituted for it in most cases. The Guaphaliums are also used against negro poisoning and rattlesnake bites. Indians, for a trifle allow themselves to be bitten, and cure themselves at once. [Raf.]

Cacalia tuberosa, Nutt. C. ovata, Ell. C. lanceolata. [Wild Caroway.] Leaves glaucus; all, more or less, emollient, like mallow. [Raf.]

Senecie hieracifolia, M. [Fire-weed.] A large homely weed, in newly cleared ground. The bruised herb is sometimes used externally, to painful swellings and ulcers.

S. aureous, L. [Ragwort.] It is said by Schœpf to have been a favorite remedy with the Indians. The juice of the plant in honey, or the seeds in substance, are employed. [Porcher.]

Lactuca elongata, Muhl. [Wild Letuce.] Said to act as an anodyne, and to produce a discharge by the kidneys and the skin, being similar in its effects to L. virosa of Europe.

Nabalus albus, Hook. [Rattlesnake-root.] Used in dysentery and to cure snake bites; in the last case it is applied in the form of poultice. [Raf.]

N. altissimus, Hook. [Gall of the Earth.] The root is excessively bitter. Used as a tonic in domestic practice, in South Carolina. [Porcher.]

Order, Lobeliaceae. [Lobelia Family.]

The plants of this order with us, are all herbaceous, yielding a milky, acrid juice, and are all dangerous plants, belonging to the acro-narcotic class of poisons.

Lobelia inflata, L. (Lobelia.) This is an unsightly weed-like plant, growing in most parts of the United States. It has an unpleasant odor, and an acrid, nauseous taste. Dr. U. Proctor, (American Jour. Phar.), found it to contain a peculiar principle, lobeline, lobelic acid, a fixed oil, resin, etc. Lobeline is a principle analogous to nicotine; it is semi-fluid, of a light yellow color, and less specific gravity than water. (Grif.) Lobelia imparts its active principles both to water and alcohol; was known to the aborigines, and employed by them both in medicine and the preparation for their great ceremonies. In small doses lobelia acts as a diaphoretic and expectorant; and in large doses as a powerful and even dangerous emetic; whilst in still larger quantities its effects are those of an active acro-narcotic poison.

L. cardinalis, L. (Cardinal Flower.) A fine showy plant, with bright scarlet flowers, growing in wet, shady places. Properties similar to the L. inflata, but probably less energetic.

L. syphatitia, L. Flowers, as in most of our species, blue. This plant was in high repute among the Indians as a remedy for syphilis, and at one time employed by physicians, but subsequent experience did not confirm the statements in its favor, and it is at present neglected. It is, however, an article of some activity, and might perhaps be found beneficial in the same kind of cases in which L. inflata is found useful. "Grows in Louisiana." (Riddell.)

The following native species also possess similar properties to the L. inflata, and some of them are supposed to possess greater diaphoretic and diuretic powers than that species:

L. pubala, M., resembles the last.

L. glandulosa, Walt. L. paludosa, Nutt. L. glabella, L. Claytonii, L.

[*To be continued.*]

V—SELECTED ITEMS OF MICROSCOPIC OBSERVATION.

Being in explanation of eight Lithographic Plates relating to Animal cells, the origin of capillary vessels, cause of the circulation of blood in animals, swarming in vegetable cells, microscopic pathology, and natural history.

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(*Continued from the July Number of this Journal.*)

TAB. XV.

HISTOLOGY.

[1000 *diameters, No.* 143 *excepted.*]

Cellular structure of the tadpole.

143. Frog spawn; ova found on the surface of a puddle of rain water, July 3d; presumed to be of the Hyla arborea, *Lau.* Natural size, and appearance. As is well known, it consists of a black central globule, surrounded by a gelatinous envelope. The black globule detached, broken and examined over an inverted microscope with Spencer's best objective, presented among many things worthy of note, the following:

144, 145. Cells containing nuclei, nucleoli, etc.

146. Nucleolus, with its contents rendered visible by adding salt and vinegar.

147. Free cells, probably the same as the nuclei of Nos. 144, 145.

148. Immeasurably small black bodies, occurring in great abundance in some of the cells, manifesting incessant and active molecular movements.

149. A cell, showing within it, exterior to the free nuclei, multitudes of the black

points (148) in a state of motion. [This was observed the 4th July, after the tail of the tadpole, from which it was obtained, had made its appearance.]

150. Larger cell and contents, far more rare than 144, 145, 149. [Seen July 3d,]

151. Superficial arrangement of the cells, in the tail, and skin of the body ; [seen July 4] no interstitial spaces being apparent. Material for assimilation is evidently supplied to these cells, by simple endosmosis or imbibition.

152, 153. What I take to be embryonic blood, mostly on account of the color, and because I can find nothing else more closely resembling blood corpuscles. The contained nuclei or nucleoli, many in number and variable in size, down to the smallest visible mote, all manifest a slight molecular movement. This was observed July 5, when there was no circulation of blood visible, in the living parts accessible by the microscope.

154, a, b, c. Undoubted blood corpuscles. Seen July 6.

155, a, b. Appearance of the same (154), after the addition of salt and vinegar The composite nuclei are here rendered visible.

156. Ciliated cell. Seen July 5. Upon disintegrating by compression, a third day tadpole, many corpuscles are set at liberty, which for twenty or thirty minutes will keep up a spontaneous gyratory motion, revolving four or five times in a second, at last gradually ceasing. Just before the motion finally ceases, ciliæ can be seen, which are previously and subsequently invisible. They are probably less than one thirty thousandth of an inch in thickness, so that a moderate movement is necessary to render them visible. I saw ciliæ on one side of the corpuscle as represented.

TAB. XVI.

[1000 *diameters.*]

HISTOLOGY, PHYSIOLOGY.

Origin of Capillary vessels, and Capillary circulation in the tadpole.

157. Cellular structure seen in the tail of a fourth day tadpole, [July 6] showing the superficial cells more or less removed from each other, leaving intercellular spaces. The adjacent deeper layers of cells being out of the focus, and not here represented, are possessed of a similar mutual arrangement, there being interstitial spaces. This is evidently the effect, in part, of growth, and in part of the intromission of a clear fluid between the adjacent cell walls. Two days earlier no intercellular spaces were seen. Vide 151.

158, 159, 160. Incipient capillary vessels. The same tissue as the foregoing (157), examined three days later, presents the intercellular spaces modified, as represented in these figures. It would seem that the tension or internal pressure of the fluids of the growing tadpole, forces a clear liquid between the cells (157) ; that there is thus a commencement of intercellular lymphatic circulation. This fluid probably leaves a trace of plastic deposite in its path, and thus produces the curiously ramified structures here represented. There are, in effect, vessels branching in all directions, and communicating variously with each other (and doubtless also with the capillaries carrying corpuscles subsequently), by channels often less than 50,000 of an inch in thickness. In the enlarged portions, fine granular matter is sometimes seen, as shown in 159. But no contained bodies, like proper cell nucleoli, or Schwann and Schlei-

den's cytoblasts, are at any time discoverable in these vessels, while they continue to carry clear fluid.

Schwann, in his original and very able memoir of researches into the origin of animal cells, is inclined to regard these structures as true cells. He describes them as stellate cells, alleging that he occasionally saw what he supposed to be the nuclei from which they were generated. Further on I will advert to what I suppose misled him. Carpenter, and other writers on physiology, have adopted Schwann's suggestion in their attempt to account for the origin of the capillary vessels.

161, 162. Capillary vessels for the circulation of blood corpuscles.

a. Red corpuscles, appearing, as seen through the microscope, of a pale, brownish yellow, moving through the capillary vessels, travelling really at the rate of an inch in from five to fifteen minutes.

b. White blood corpuscle.

c. Red corpuscles which have become attached to the wall of the vessel. I have often seen them run aground in this manner. Sometimes they get loose and resume their voyage; acquiring by the accident a more or less attenuated caudal appendage. Such must be the origin of the caudated corpuscles* so frequently seen in the blood of the reptilia, and sometimes in the blood of man. In other instances they seem to become permanently attached, forming, in effect, a sort of valve, which is obviously adequate to act in the way of preventing regurgitation in the smaller capillaries.

f. Blood corpuscle attached along its whole length to the wall of the vessel; probably mistaken by Schwann for a cytoblast.

c. d. Blood corpuscles as seen bending around angles. The red corpuscles are remarkably flexible and plastic.

Origin of the Capillaries carrying blood corpuscles.

As the development and growth of the tissues proceed, the incipient vessels (158, 159, 160) containing and transporting a transparent fluid, seem to be distended by the tension of their contents, and by the impetus of the blood corpuscles and serum. This impetus is obviously derived from the action of the heart, and from the general muscular movements. The corpuscles are forced into the mouths of the incipient vessels. Some of them form valves, as in 161, e. The corpuscles, unable to return by their path of entrance, are forced to open for themselves, through the ramifications of the incipient vessels (158, 159, 160) a new channel of circulation.

It is extremely probable, that the first single file of corpuscles, travelling as well as subsequent ones, in the newly distended vessel, deposits upon the wall of the vessel a portion of plastic material, which tends to give body, and limited thickness or diameter to it. Hence the probable origin of the capillary vessels.

Motive power causing the circulation of the blood corpuscles.

In reference to the cause or causes of this capillary circulation of corpuscles in the living tadpole, I entertain no doubt whatever in referring the phenomenon entirely to muscular action. Because—

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* Figures 117, 120, 123, in the July No. of N. O. Med. and Surg. Jour., p. 116, represent caudated blood corpuscles.

1st. The action of the heart can be clearly seen by a half inch lens, and its pulsations timed.

2d. With different powers of the microscope the blood can be visibly traced even to the extreme capillaries, manifesting, in a decreasing degree, the impulse of the heart in quickened movement the whole way.

3d. When a stasis or obstruction occurs in the extreme capillaries, during the life of the tadpole, the heart's impulse becomes palpably apparent, in a slight advance and retreat of the corpuscles, synchronous with the contractions of that organ.

4th. General muscular action, by successively compressing and distending different parts, must tend to give motion to the contained fluids; and as valves occur, not only in the veins, but even in the capillaries,* the (161, e) blood when made to move, is of necessity mostly moved in its normal direction, from the arteries, through the capillaries into the veins.

5th. Considering the normal velocity of blood moving in the capillaries, an inch in eight or ten minutes, we should expect comparatively a very small obstruction, from the friction of the moving fluid. Other things being equal, the resistance would be nearly in a duplicate ratio to the velocity.

6th. Any degree of vital, endosmotic, capillary or chemical force, supposed to be exerted between the fluid or the corpuscles on the one hand, and the walls of the containing capillary vessels, or the subjacent tissues, on the other, could never be expected to cause the blood to move one way rather than the other; for it would be a force necessarily acting at right angles to the path of movement.

7th. The extreme capillaries seem to be mechanically passive, suffering in rare cases a distension synchronous with the pulsations of the heart, to an extent barely appreciable; usually giving transit to the blood, without observable change of form or dimensions.

I am aware that opinions very different from what I have here expressed, respecting the agencies here employed in circulating blood, have been lately advocated by writers of great ability and high standing. Their opinions seem to have been confused, by comprising in the same point of view, two phenomena in every respect wholly distinct, namely, the continuous circulation of organized corpuscles [blood], which corpuscles may be seen, through tubes or vessels of measurable calibre; a purely vital phenomenon, only witnessed in animal beings that are at least large enough to be visible to the naked eye; and, a purely physical movement (not a continuous circulation) of fluids, in which no visible corpuscles are necessarily concerned. Of this nature are imbibition, endosmosis and exosmosis, in animals and plants, and even in unorganized matter. Endosmotic imbibition at the rootlets, and exosmotic evaporation from the leaves, contribute thus, efficiently, to the ascent of sap in trees. And wherever organized cells, in a living condition, are in the active performance of their accustomed functions, these physical agencies are seen to be subservient to the processes of vitality, in supplying material and disposing of products.

In most of the processes of animal life, the oxidation of carbon takes place, requiring the constant supply in some form of oxygen. The microscopic animalcule can absorb directly enough of this agent from surrounding air or water, and for this pur-

* In some of the capillaries, no valves were observable. In these I have often seen the current of blood change its direction, especially while the tadpole was dying.

pose needs and possesses no corpuscular circulation. The aquatic worm, barely visible to the naked eye, will generally present, under the microscope, an alternate or reciprocal row of corpuscles, from near one extremity of his body to the other, then back again, in the same simple channel. It is only in animal beings of a larger size, where cell life is in progress at such profound depths from the surface as to preclude the access of air by direct imbibition, that a complicated and special circulatory apparatus becomes necessary.

TAB. XVII.

[1000 *diameters*, 163, 164 *excepted.*]

PHYSIOLOGY.

Molecular movements in vegetable cells.

163, 164. Closterium Lunula, *Ehr.* Magnified 200 diameters. From the Metarie Bayou, back of New Orleans, June 23. It is here associated with a species of spirogyra. We have in this vicinity many species of Closteria. They are classed with the Desmidiæ, a sub order of Algæ. The closterium consists of a single cell of circular transverse section, without any external openings, and containing within an organized green substance, denominated the endochrome. Many of the species occasionally manifest, in a low degree, the power of self-movement, as evinced in slowly changing position. Many observers have noticed near each extremity, a ball made up of free granules, which incessantly move among themselves. The Closteria, in my opinion, are truly of a vegetable nature, and such is the opinion of Meyen, of Ralfs, who published a monograph of the Desmidiæ, of Prof. Asa Gray and others, in opposition to Ehrrenberg and Bailey, who incline to regard them as animals.

165. Closterium Lunula, Ehr. A representation of one extremity, on a scale of 1000 diameters.

a. A dense ball, consisting of a congeries of comparatively large, dark, free corpuscles, slowly moving among themselves, in that irregular way denominated swarming. There is a clear spherical space around the ball.

b b' c c.' Between the cell wall and the green endochrone, there is an open space, along which a multitude of corpuscles, usually smaller than those at a, perform certain molecular movements. They seem anxious to approach the vicinity of the ball a, and when about opposite to it, they then retreat, and may travel to the ball in the other extremity. Usually, however, they march and countermarch a great number of times between b, c, etc.; so that they pass and repass each other, and sometimes come for a moment in mutual contact.

e. Corpuscles mostly much smaller than the last, may be seen very actively swarming at e.

These curious and hitherto unaccountable movements, are perhaps of a vital nature. They most likely contribute, in some way, to prepare for a subsequent procreative process, the formation of a sporangium, and its highly elaborated contents; the analogue of the seed in the higher vegetables.

166, 167. Arrangement of hexagonal cells in the upper surface of a ray floret of Dracopis amplexicaulis, Cass. Nat. Ord. Compositæ. This plant has yellow florets

with a purple base; it grows abundantly in this country. This drawing is designed to illustrate the swarming movement of free molecules which I have observed in the petal cells of a great many different species of plants. It is unnecessary to enumerate them. Under the proper circumstances, it must, I think, be universal. It is probably designed for the high elaboration and vitalization of vegetable substance, preparatory to the procreative process finally shared by the pollen and the germ, which results in the production of seed. In the examination of double flowers, as of the rose, and the Impatiens balsamea, very little of this movement can be observed, and I think none of it, in the absence of the stamens and pistils, by degeneration into petals.

166. Shows the manner in which the yellow color of the petal is packed away in a multitude of ornamented cells or florulets.

167. Represents myriads of yellow* rounded vesicles, 1-60,000 of an inch in diameter, as seen actively swarming, or moving in all directions. Here the cell contents are supposed to be more advanced than in 166; these vesicles, now free, having been the contents of the ornamented cell.

In some flowers these vesicles are larger, in others much smaller; and the same remark is true of the ornamented cells which contain them. I have observed the greatest abundance of the moving vesicles in the Compositæ. The swarming is precisely like that observed at e, 165, in the Closterium.

168. Side view of one of the hexagonal petal cells [taken near the base of the petal]. Longitudinal striæ, like those so often seen on the cells of Closteria, exist upon the surface of the cell. In this position the swarming is most satisfactorily seen.

Remark. The foregoing observations upon the swarming of vesicles in petal cells, bring to light, in my opinion, an interesting analogy between the elaborate and beautiful flowers of the field, and the obscure, flowerless algæ. Similar swarming movements are observable at certain periods in every algoid species which I have fairly examined.

TAB. XVIII.

[1000 *diameters.*]

PATHOLOGY.

Structure of bronchial mucus.

Sputa of consumptive patients, and pulmonary tubercle.

169. Bronchial mucus not opake (March 9th); case of an obstinate cold? A corpuscle of two cells, contained vesicles manifesting molecular movements.

170. Mucus corpuscle, with moving nucleoli, as in 169, with which it was found; a common form. From the distensible nature of such mucus cells, it is easy to comprehend how corpuscles like 169, 173, 174, and 93, 94, 95, Tab. X. could, by extrinsic mechanical causes, be modified into the forms 170, 171, 172, and into the forms 96, 97, 106, Tab. X.

171. Mucus corpuscle with 170, etc., with moving nucleoli.

* The coloring matter of the flower, whatever it may be, pertains to these vesicles, when they swarm free.

172. The fibrous structure of the same viscid mucus (169, 170, etc.) shown. The fibres are probably produced by the elongation of rounded corpuscles.

173, 174. Mucus corpuscles, much condensed, from a sore throat? with a little blood; 173, nucleated corpuscle, with moving nucleoli; 174, corpuscle with moving nucleoli.

175. Outline of a blood corpuscle.

176, 177, 178, 179. Corpuscles mostly resembling in structure mucus corpuscles, observed in the ropy, cream-colored, opake, odorless sputa, expectorated by a lady aged 27, who has had phthisis six months. She is attended by Dr. A. F. Axson, who in this, and many other instances of disease, has kindly furnished me samples for examination. In none of these corpuscles were the nucleoli observed to move. It is probable that most of them were mucus corpuscles, but so long retained in the lungs and bronchia as to have lost their vitality These corpuscles were frequently entangled in a fibrous substance like the fibrous part of 172; and with these could be seen a large amount of amorphous, granular matter, [disintegrated corpuscles] similar to 182, 188, and a variety of minute algæ (189, 190, 192, 193). Occasional epithelial cells (183) were observable.

180, 181. Corpuscles resembling 177, 178, in the sputa of an Irishman, aged 40, in the Charity Hospital, under the treatment of Dr. C. Cummings, who brought the sample for examination. This patient is far gone with chronic consumption. He expectorates more than a pint of ropy sputa daily. Some of these corpuscles show moving nucleoli within. In others the contents are still. These sputa contained a great abundance of minute algae of the forms 191, 192, 193, 194, and large corpuscles of a specific kind, 195.

183. Nucleated epithelial cells, observed in the sputa of Dr. Axson's case, (176, etc.)

184, 185, 186. Corpuscles seen in a closed tubercle from the lungs. July 8th. Dr. C. R. Nutt brought me a gray tubercle half an inch in diameter, dissected from the lungs of a person who had died that morning in the Charity Hospital. The deposite seemed to be in the air cells, and its structure not unlike that of bronchial mucus, after making allowance for compression, condensation and frequent distortion of form, such as might be expected under the confined circumstances. No moving molecules were observed in the tubercular contents, and none of the minute algæ, 189 to 195, were seen.

187. Corpuscles from the tubercle (Dr. Nutt's case, 184, etc.) probably stinted in size and deformed in shape, by mutual pressure and want of room. These forms correspond to the tubercle globule of H. Lebert.

188. Disintegrated granular mass, with 187; the remains of disintegrated corpuscles; similar to 182, observed in sputa. The degree of opacity in tubercle and in expectorated matter, seems often to depend mainly upon the greater or less abundance of these amorphous granular remains.

TAB. XIX.

[1000 *diameters.*]

PATHOLOGY.

Algæ in the lungs.
Corpuscles in herpetic eruption.
Corpuscles in vaccine eruption.
Corpuscles from sanies in the uterus.

Algæ in the lungs, in cases of pulmonary consumption.

189. Beaded Algoid filaments, (Vibriones?) very abundant in the sputa of the cases examined. Dense masses are formed of it.

190. Algoid cells seen in the sputa, in the case under Dr. Axson's treatment, (176, etc.)

191. Algoid cells, in the sputa of Dr. Cumming's case, [180] perhaps specifically identical with 190.

192. Jointed algoid filament, seen abundant in the sputa of both cases. [176. 180.]

193. Oscillaria? Often met with in consumptive sputa [176, 180].

194. Oscillaria? Same as 193. Tufts of these were seen in Dr. Cumming's case, in which the filaments were more or less invested with masses of spherical vesicles, as shown in the figure.

195. Peculiar cell, more or less filled with vesicles of uniform size, larger than those of 169, 170, 182, 188, 194, etc. This is probably an algoid body.

REMARKS.—In no instance was any of these algæ from the lungs observed to manifest spontaneous movement. The oscillariæ were probably in the purely vegetable condition mentioned in explanation of figures 76 to 8. [Number for January, 1852.]

These bodies were observable in the freshly expectorated sputa; they must therefore have come from the lungs. Their germs were probably inhaled in the breath, and developed in the lungs of these patients, because, from the existence of cavities, or from other causes, the mucus remained an unduly long time in the lungs, after its formation.

These bodies can probably have nothing to do with causing consumption; yet, when enough of observations shall have been made, it is more than possible that the discovery of them in sputa will give to the physician the most important information respecting the condition of the lungs.

Contents of herpetic pustules.

On the 15th June, Dr. Axon introduced to me a gentleman with herpetic pustules [something like itch] upon his fingers. A pustule 1-10 of an inch in diameter was punctured, and the tolerably clear fluid examined. In it were found:

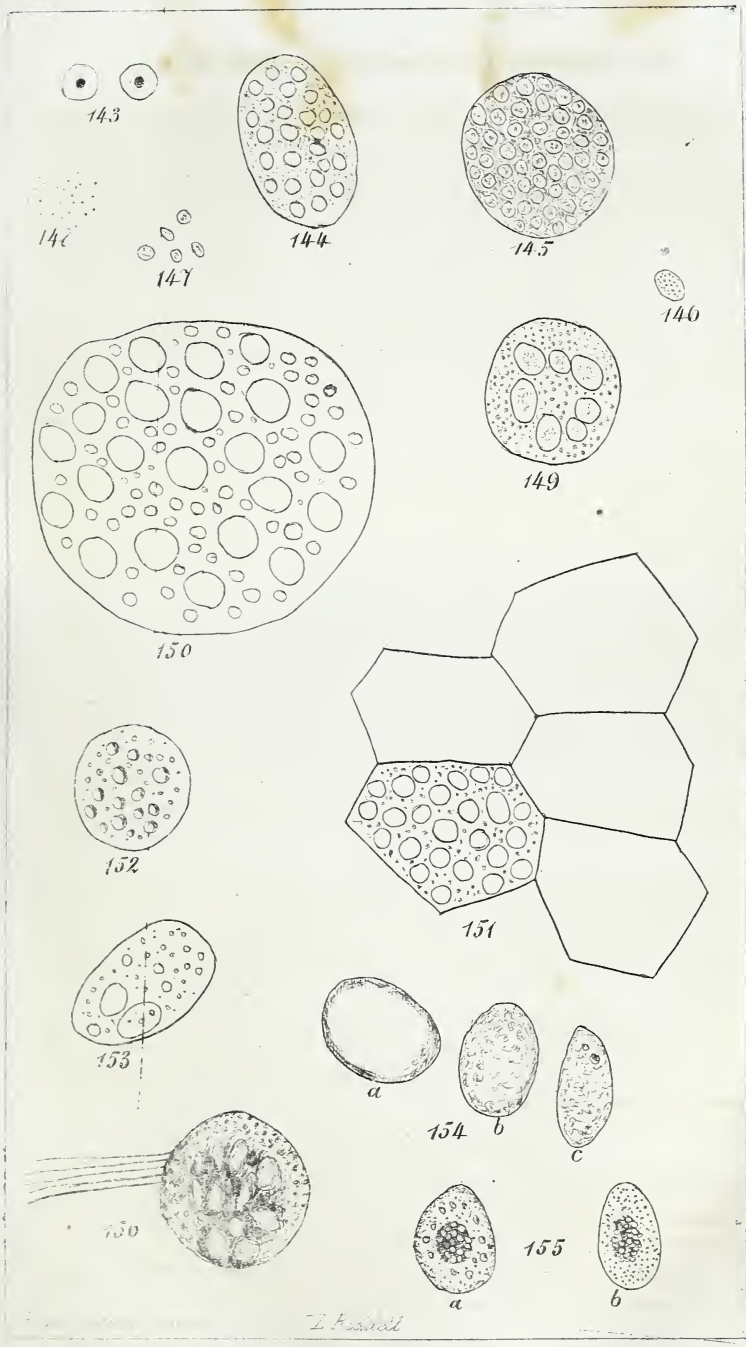
196. Delicate corpuscles, with irregular outline, and granular contents.

197. Granules grouped together in branching, irregular shapes.

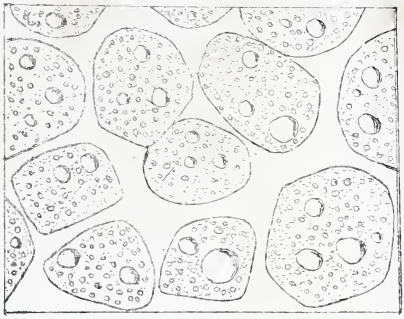
Vaccine fluid examined.

The nearly clear ichorous fluid, running on the 9th day from a vaccine sore on the

TAB. XV.



TAB. XVI



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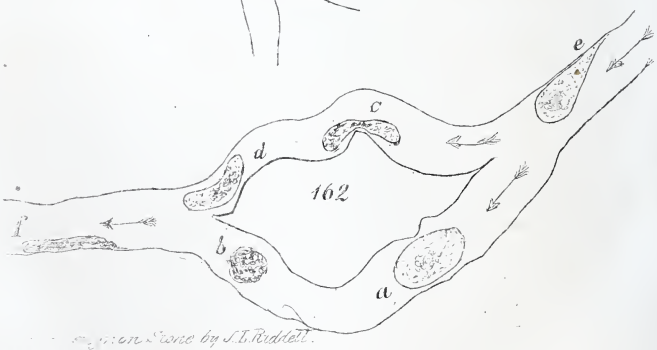
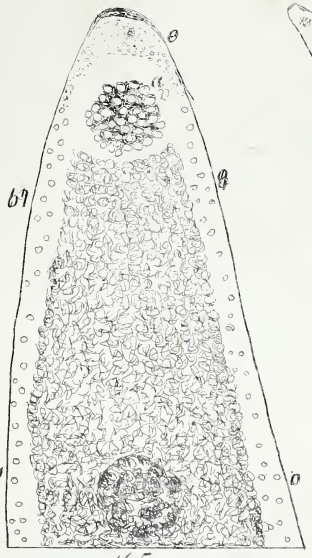


Engraved Stone by J. T. Riddell.

TAB. XVII

163



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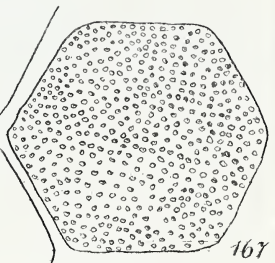

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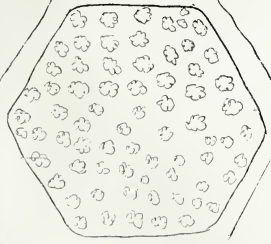

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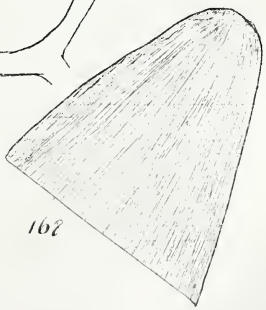

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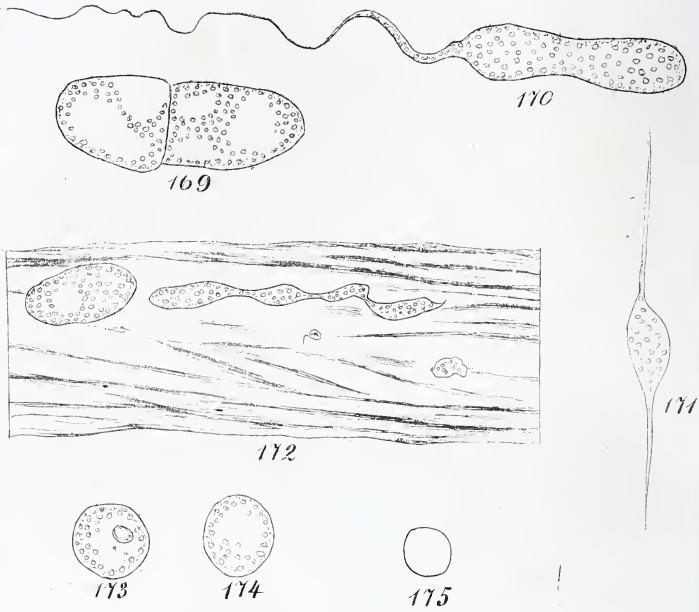
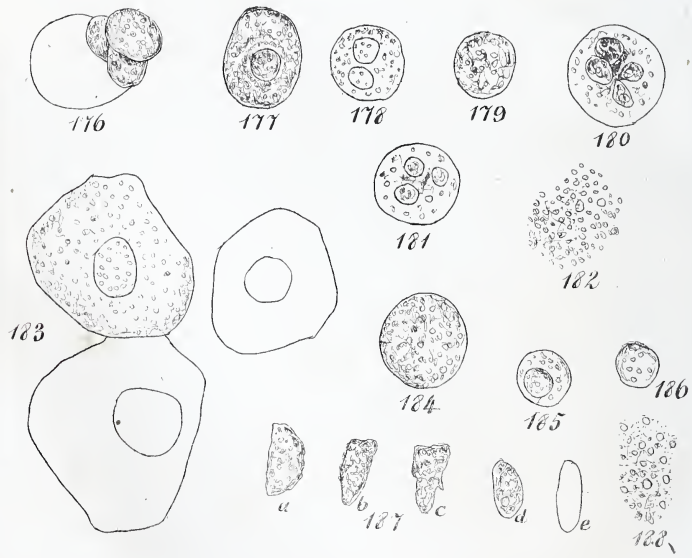
From nature engraved on stone by J. L. Riddell

TAB. XVIII





From nature engr. on Stone by J. L. Riddell.

TAB. XIX

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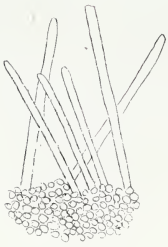

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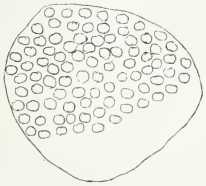
193.



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a

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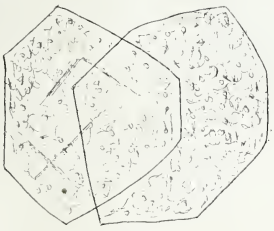
b

c

197



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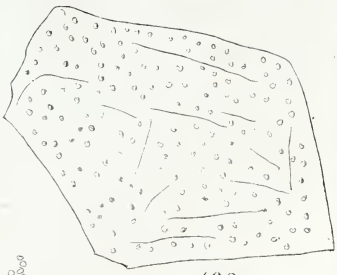

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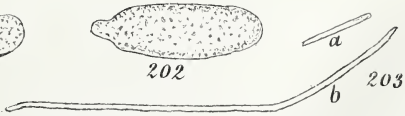


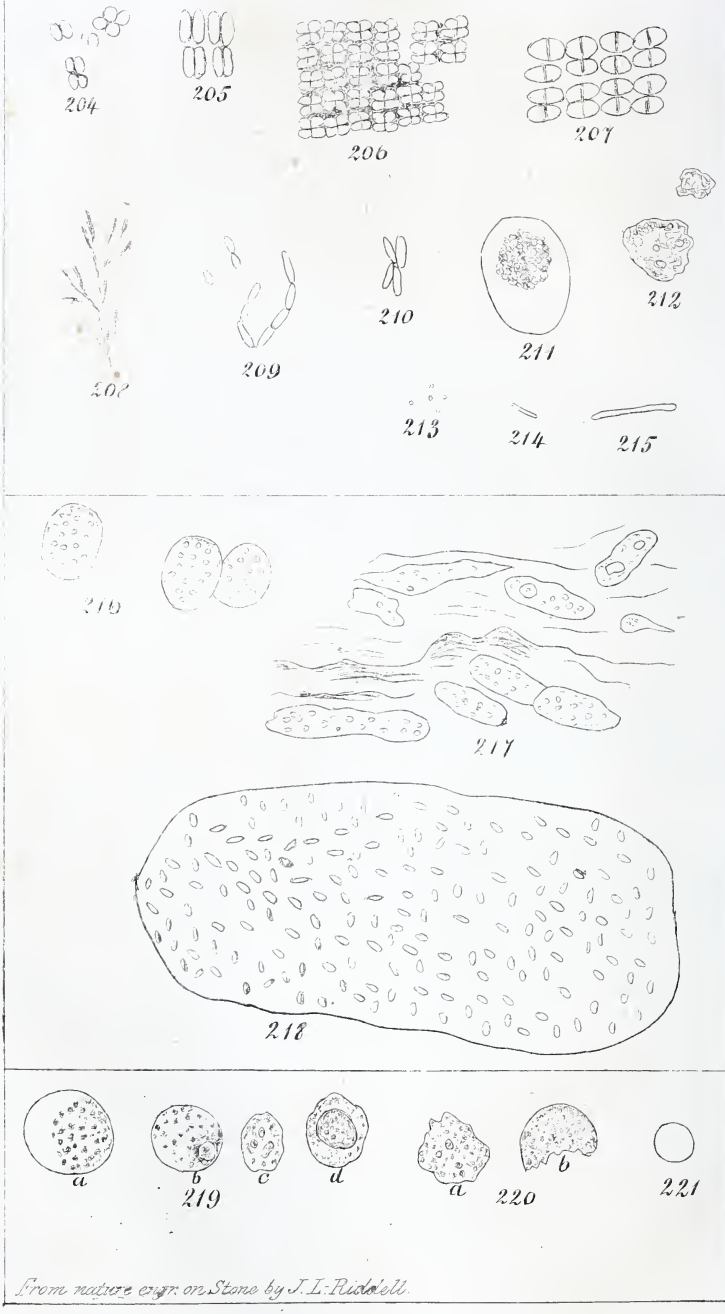
a

b

203

From nature engr. on Stone by J.L. Riddell.

TAB. XX



From nature engr. on Stone by J. I. Riddell.

223.

224.

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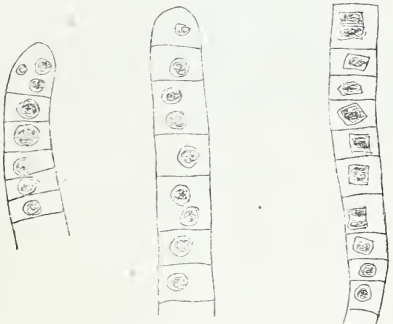

226

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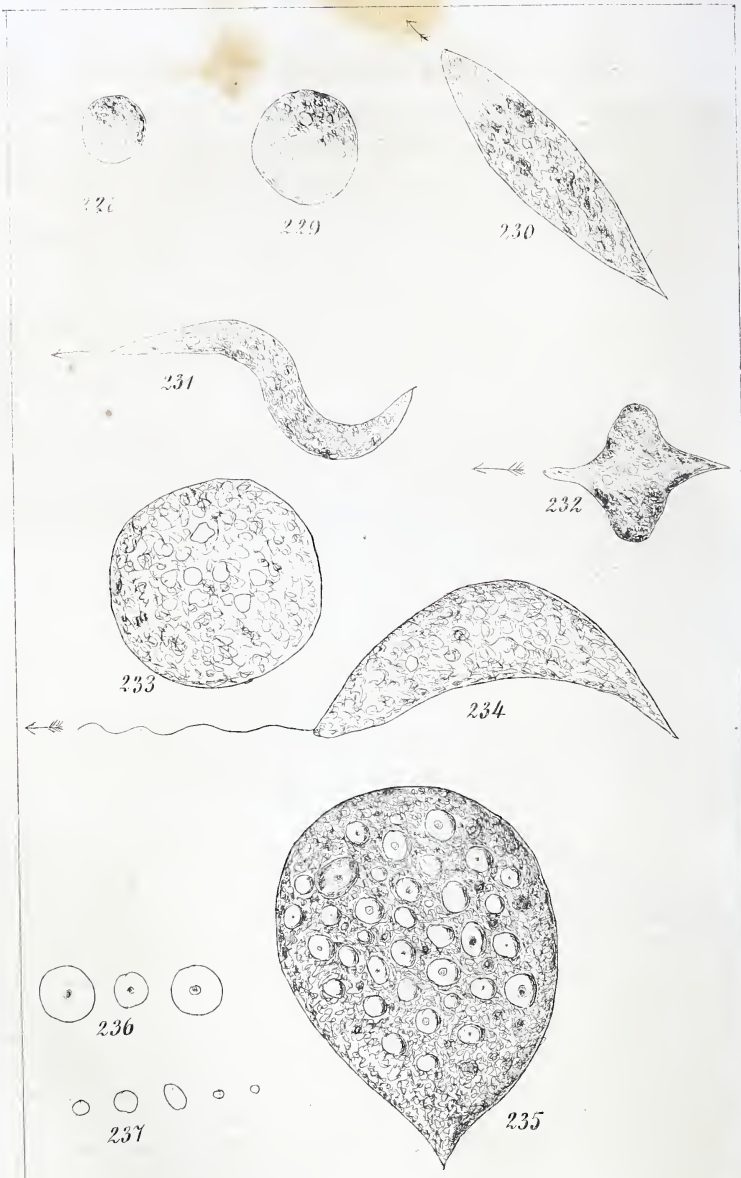
222

From nature engr. on Stone by C. B. Riddell.

TAB. XXII



From nature engr. on Stone by J. L. Ridout

arm of a healthy negro infant, showed [May 30th] nothing but the following:

198, 199. Polygonal cells, containing very minute granules.

200. Free granules or vesicles, single, double and associated, manifesting molecular movements.

I am not prepared to assert that *these* observations show any thing specific in the vaccine fluid.

Sanies from the uterus.

May 31. Dr. D. Macgibbon brought me a fetid fluid, just taken by means of a speculum from the os uteri of a lady upon whom he attended, and who was afflicted with ulceration of the uterus. It had none of the viscidity of mucus. In it I observed:

201, 202. Corpuscles containing minute moving granules. Many similar granules were free in the fluid, still keeping up the swarming movement.

203. Moving algæ, similar to those I have often seen in putrefying animal matter.

TAB. XX.

[1000 *diameters.*]

PATHOLOGY.

Typhoid dejections. Menorrhagia, Abscess.

Algæ, etc. in typhoid dejections.

July 13th, Dr. Axson brought me a phial of rice water looking fluid, the alvine evacuation passed a short time previously, by a negro man, aged 38, who had been six days ill of typhoid fever. He had been improving for 24 hours, under the use of naptha. In this rather fetid fluid I observed:

204, 205, 206. Cuboidal masses of a binary algoid body, resembling, if not specifically identical with, the Sarcina ventriculi, of Prof. Goodsir. [Vide Queckett's Histology, page 21.] They are colorless, and have the power of moving very slowly. It is observed in Queckett's Histology, that the Sarcina resembles closely the Gonium pectorale, Ehr., which occurs in stagnant waters. There exists abundantly in the waters of Lake Pontchartrain, and the tributary swamps and bayous, a closely similar organism, a few corpuscles of which I represent in the following figure:

207. Associated squares of a binary algoid body. Drawn June 10, 1851, from samples found with Potamogeton gramineum, in Lake Pontchartrain. Prof. Bailey, to whom I sent a copy of the drawing, pronounces it the Gonium glaucum, Ehr., or the Merismopedia punctata, Meyen, which is synonymous.

This association of corpuscles moves very slowly, at about the rate of one inch in twelve hours. It seems to direct itself at will occasionally, though its general course is straight.

The movements of 205, etc., are not much more rapid, and are only rendered apparent by the great magnifying power employed to inspect them.

208, 209, 210. Algoid bodies observed in the typhoid dejection before alluded to

211, 212. Corpuscles observed in the typhoid dejection.

213. Minute moving granules in the typhoid dejection.

214, 215. Moving algoid [?] filaments observed with the preceding.

Mennorhagia.

May 12th. Dr. Macgibbon gave me for examination a fresh sample of white and very viscid mucus, removed by means of the speculum from the os uteri of a woman, aged 28, suffering from mennorhagia. In it, besides a few epithelial cells, I observed:

216. Rounded corpuscles, resembling 174.

217. Corpuscles and mucus fibres, like 172.

218. Lone cells filled with oblong nucleoli or granules.

Pus from an Abscess.

July 12. Mr J. O. Magee, student in the Charity Hospital, brought me a sample of pus, which had just been discharged by the use of the knife, from an ordinary abscess in the neck of an hospital patient. It was yellowish and opaque. With the microscope I found it to consist, so far as could be seen, wholly of corpuscles, like those represented in 219, 220, and the ragged and granular debris of corpuscles, not here shown, mixed with a little blood [221], the latter probably furnished by the incision. No molecular movements were observed.

219. Pus corpuscles from the abscess above mentioned.

220. Pus corpuscles partially disintegrated, with the preceding.

221. Outline of blood corpuscle with the pus.

TAB. XXI.

[1000 *diameters*, 225 *excepted.*]

NATURAL HISTORY.

Structure and habits of a species of Alga (Oscillaria, Bosc).

Oscillaria Aureliana, Riddell.

222. Outline of the most common dark green alga in the street gutters of New Orleans, and in stagnant waters back of the city. The filaments are mostly very many times larger in proportion than represented; mostly straight, if free, rarely slightly spiral. In the early stages of their filamentous growth, no movements are discernible; later, these filaments spontaneously move indifferently either end foremost, at the rate of near one inch in four hours, generally revolving at the same time upon their longitudinal axis, from right to left, nearly five times in a minute.

223 shows their vesicular structure, and the transverse markings due to cell septa. Some writers [Asa Gray, Bot. Text Book, p. 66] consider the Oscillariæ as "single elongated cells, without septa. Figure 226 shows the appearance produced in 222, by first digesting in caustic potash, then boiling a short time in nitric acid; the endochrome tends to contract and become globular, leaving the cell septa perfectly apparent.

224. Viewed with oblique light properly directed, very minute transverse striæ are visible, which pertain to the exterior coat, for they are visible in the empty end of 227, a broken filament. These striæ are near 80,000 to the inch.

225. A single segment of the same, magnified 3000 diameters, showing the cross striæ [224] and also faint marginal projections. I have scarce a shade of doubt that

the striae are produced by the projections; and further, that these projections are of the nature of moving ciliae, immeasurably small. I have often obscurely seen them as represented. This must be the mechanism by which the alga moves.

226. Demonstrating the existence of septa in the Oscillaria. See 223.

227. End of a filament, supposed to have been broken off. The end, if growing rapidly, is generally somewhat curved and of diminished size. The terminal cell of a broken filament immediately rounds itself out, as shown; while the containing tube, so far as it is left empty, is usually somewhat contracted in thickness, evincing thus some degree of elasticity.

The growth of these filaments, by elongation and subdivision of cells, occurs every where intermediately, as well as at the ends. Intermediate growth is indicated in this figure by the bulging out of the septa of a cell. The color in such places is comparatively a lighter green.

REMARKS.—These filaments, wholly invisible to the naked eye, abound in our gutters, etc, in the form of a dark green slime. They [or a closely allied species] communicate an apple green hue to the whole body of the water of the large drainage canals back of the city; in which water they swim free, and in comparatively short lengths. At length they ascend to the surface, where they form a green scum, or a green paper-like stratum. In this condition they may become dry, by the evaporation of their native pools, and without losing the vital principle. When mature and nearly dry, the filaments are remarkably fragile, the cells generally separating, so as to become short sections af a cylinder, in shape like cakes of cheese. In water, these short segments manifest, like the filament which they before composed, what appears to be a sort of animal vitality. Their subsequent development and transformations I propose to notice, so far as I have observed, in explanation of the next plate.

TAB. XXII.

[1000 *diameters.*]

NATURAL HISTORY.

Transformations of Oscillaria Aureliana.

228. End view of a segment or single cell. [Vide Remarks under 227.]

229. The same developed to a larger size, having acquired one or two small red irregalar vesicles. Its movements become now something like those of a leech. Its contents are mostly deep green in color, vesicular and granular in structure; external openings none; grows by endosmotic imbibition; surface minutely [1-80,000 of an inch] striated; anterior extremity armed with a vibratile hair, very difficult to be seen. [134.] The movements are 10 to 20 times as swift as the Oscillaria in its filamentous form [222].

230, 231, 232. Same as the preceding [229], as seen in action, and in different positions. The movements appear to be under the control of volition.

233. More advanced stage of 229, as seen in a state of rest. Here well defined comparatively large vesicles may be seen.

234. Same as 233; in a state of motion. The vibratile hair is here represented.

REMARK. Botanists would call this being a zoospore. Somewhat similar beings have been observed in many instances, as produced by different species of fresh water

algae. Considering that it has been seen to produce a multitude of rounded cells [236, 237] which doubtless individually possess a germinative power, it would properly be termed a sporangium.

235. Mature sporangium, the final form of 228, 234. My attention was first fairly called to this body, May 11th, 1852. when riding out Bienville street, more than a mile back of the city, I saw an intensely vivid green scum, upon shallow drying pools of water by the way side. Upon examination I found it made up of these corpuscles, all of them sluggish, and some entirely inactive, dry and brittle. The water below was filled with the same in the active condition [230, 234, etc]. The dry body, 235, would burst from the slightest cause, [and spontaneously, too, I believe], leaving the free granular contents [236, 237] in a fit condition to be blown about by the winds, or lifted into the air by the mere evaporation of water. [Vide figs. 54, 55, N O. Med. and Surg. Jour. for Jan. 1852.

236, 237. Free cells; granular contents of 235, the aerial form of Oscillaria Aureliana (222). It is not easy to observe well the contents of these cells. Indeed the amount of contained visible matter is obviously very small, and when dry, they are mostly filled with air. Hence, in proportion to their bulk, they must be exceedingly light, and well fitted for transportation through the atmosphere.

Miasm. [A suggestion.]

For want of sufficient observations, I am unable to trace the history of the Oscillaria Aureliana, in a satisfactory manner, any further. I am sure, however, that last year I collected from the air of this locality, and saw through the microscope, vesicular bodies resembling 236, 237. It is possible that these spores, inhaled into the lungs, may quicken into parasitic life, taking on some form of alternate generation, of which we are now ignorant, appearing perhaps as some cell, so slightly differing from the appearance of the normal and ordinary cells, as to escape our observation; yet producing in the system an effect prejudicial to health. It is possible in short, that in its aerial condition, this singular alga may be one of the kinds of miasm.

VI.—SOME OBSERVATIONS ON CEREBRO-SPINAL MENINGITIS, IN ITS EPIDEMIC FORM.

BY R. F. TAYLOR, M. D., LOUISIANA.

Fortunately for mankind, the disease in relation to which we propose to offer a few observations, Cerebro-Spinal Meningitis, as an epidemic, occurs very seldom, and then, unlike most other epidemics, to a very limited extent. In the outset of the malady, it is unquestionably much more malignant than Asiatic Cholera in its worst form. But after passing through a few constitutions, the force of its virulence seems to be materially modified, rendering it much more amenable to treatment.

We find, so far back as the fourteenth century, the disease spoken of by Prosper Alfin, under the name of *Cephalitis Œgyptiaca*, in an epidemic form, in France. Rumelius speaks of it in 1503 and 1517. Ozanam mentions also the occurrence of an epidemic in Palermo and the Sicilies, in 1588, which was described and studied by Ph. Ingrabsia.

In modern times, we learn of the disease making its first appearance in the Mediterranean, at Gibraltar, a place celebrated in the history of epidemics. It was at this unfortunate spot that the Plague made its debut upon the continent, destroying in its progress many millions of human beings, as well as vast numbers of domestic animals. An interesting account is given by M. Rollet of Nancy, (*Bulletin de l'Acad. Roy. de Med.*, VIII. 43) and MM. Fauvre, Villar, Chaffaurd and Forget in 1844. In the "Dublin Quarterly Journal of Medical Science, August, 1846," an article may be found from the pen of Dr. Mayo, descriptive of the disease as it occurred in Ireland.

The first appearance of the malady in the United States, so far as we are informed, was mentioned by the author of this paper, then resident in Whiteville, Tennessee, and Dr. Hicks of Vicksburg, simultaneously, both papers appearing in the New Orleans Medical and Surgical Journal, May, 1847. In January, 1848, the disease appeared in New Orleans in its most malignant form. The able faculty of that city, if we are correctly informed, were, at first, at a loss to locate the disease, and still more to treat it with any considerable degree of success.

The Second Regiment of Mississippi Rifles, en route for Mexico, during their bivouac in New Orleans, January, 1848, suffered very severely. Dr. Love, the Surgeon of the Regiment, remarks: "Six months after our Regiment had entered the service, we had sustained a loss of one hundred and sixty-seven by death, and one hundred and thirty-four by discharge." This great mortality is certainly almost unparalleled.

Dr. S. Ames of Montgomery, Alabama, in the New Orleans Medical and Surgical Journal, November, 1848, describes the disease at great length, and gives the microscopic examinations of a number of cases occurring in his practice in the winter and spring of 1847 and 1848. Since that period we hear of little being said in reference to the malady. A few cases, however, appeared upon the plantation of Messrs. Turner and Quitman, in Council Bend, on the Mississippi river, near Vicks-

burg. Those gentlemen lost seven likely men on the fourth day of the attack. The most prompt and decisive treatment that could be devised seemed to utterly fail in making the slightest impression upon the disease. Recently we learn of an epidemic, resembling Cholera, existing in Matagorda, and other portions of Texas. From the descriptions given, we have no doubt of its being Cerebro-Spinal Meningitis.

According to our observations, founded upon microscopic observations, the disease occurs in two distinct forms—a point of special importance to be borne in mind. In the first, there are no signs of lesion of the nervous centres; no affection of sensation or motion, but all the symptoms of Phlegmasiæ; rigors, vertigo, agitation, slight delirium and fever. The latter, however, is not always present. In the second form, the mental faculties are greatly impaired, with total abolition of the functions of sensation and motion. In this form we find, upon dissection, vascularity of the arachnoid, layers of plastic lymph, and purulent matter covering the inner surface of the Pia Mater, with collections of pus at the base of the brain. The cerebellum is most generally softened, and pus is found along the vertebræ. These lesions, for the most part, correspond with the observations of MM. Fauvre, Villar, Chaffaurd and Forget.

We have said that the mortality in this disease was greater than that of Cholera, and might have added, excelled only by that of the Plague, the scourge of the Sultan's dominions. In the French epidemics, according to the eminent authorities cited in the first part of this paper, the calculations exceeded eighty per cent of the whole number. In the Irish epidemic it was still greater, in the beginning of which almost every case died. According to our observations, the mortality would amount to at least seventy-five per cent; a frightful commentary upon the utility of the healing art.

In regard to the symptoms, as before remarked, we have in the first form of the disease the ordinary signs of inflammation. Upon the outset of the attack the patient complains of difficulty in breathing, with acute pain in the side and thoracic region. The bowels are generally in a constipated condition; exaltation of the cutaneous sensibility; countenance tetanic; twitchings of the muscles, and involuntary starts. Rose colored petechiæ are often found in the clavicular regions, and upon the surface of the body and upper extremities.

In the second form of the disease the symptoms are of the most formidable character. In the commencement of the epidemic most cases are marked by deep collapse, as in Cholera. There is complete abo-

lition of the functions of sensation and motion. We remember the case of a child, five years of age, previously in good health, who complained of slight pain in the abdomen, became collapsed in less than an hour, and died in four hours from the beginning of the attack.

In reference to the treatment of this inveterate malady, we have tried all of the therapeutic agents recommended to combat inflammation, and found them almost entirely useless. Bleeding, cupping the spine, purgation, powerful counter-irritation, large doses of Calomel, alike seemed to have little influence upon the progress of the disease.

In view of these facts, it occurred to us that large doses of Quinine and Opium might be of service, and accordingly determined to test their practical application. We were not then aware that the experience of the French practitioners had demonstrated Opium as the chief remedy to be relied upon

When the collapse is deep, as in the second form of the disease before described, it is totally out of the question for any practitioner to assert that remedies will be of the slightest service. Dissolution is inevitable. It seems as though life had congregated itself in one bright resplendent spot, in the hidden recesses of the nervous system, to take its departure forever.

We administered Sulphate Quinine in ten grain doses every two hours, with two grains Opium, or its equivalent of Sulphate Morphine, and found the treatment highly beneficial. When an impression had been made by these remedies, we usually administered afterwards 20 grains of Calomel combined with Comp. Ext. Col., so as to produce full and free purgation. The latter remedy, in the commencement of an attack, is never of the slightest service, according to our experience. But after the free use of the remedies above indicated, it is of much value.

Precisely in what manner these remedies act,—their *modus operandi* in restoring the diseased tissues to a normal state,—we are at a loss to conjecture. Absolutely certain it is, that all the cases we ever saw restored to health were accomplished by the liberal use of these remedies. Probably their stimulant and sedative effect, in some mysterious manner, inexplicable, combine to overthrow the disease, and restore the tissues to a normal state.

July, 1852.

VII.—ON THE USE OF SALINES AND OPIATES IN DYSENTERY.

BY F. E. GORDON, M. D., ALABAMA.

Having made a report to the Alabama State Medical Association, by appointment, on the diseases of Marion, which was lost through the illness and absence of Dr. Jackson, its late Treasurer, I herewith submit the following remarks on the use of Salines and Opiates in Dysentery.

This disease prevailed here as an epidemic during the spring and summer of 1851, and gave rise to great diversity of opinion and treatment. This is not strange, as its pathology and management have been, for more than two hundred years, disputed points amongst the ablest medical writers. Chisholm, and James Johnson more particularly, contended "that the liver itself forms the primary seat of the disease in every instance," and hence urged the use of mercurials even to ptyalism, while the more venerable opinion of Sydenham, which locates it in the larger intestines, is more generally received in this day; and hence a revival of his practice is likely to ensue, if it may not be said to have done so already. With the exception of blood-letting, Sydenham's plan of daily purgation, followed by his own potent laudanum at night, is not easily improved upon. That he would have abandoned bleeding, had he lived to this day, (to say nothing of this climate) his great practical sagacity and the example of his able successors in London, warrant us in saying.

Watson contends that the sheathing of the lancet has been the result of Cholera, which, since 1832, has modified the character of diseases, and many eminent physicians on this side of the Atlantic equally ignore the abstraction of blood, though accounting for its inapplicability in different ways.

From a glance at the various reports made to the Alabama Association, which, though conflicting in many respects, generally assign a greater mortality to this disease, we would be disposed to set down our epidemic as very mild. Indeed we think fever did not make its appearance in the onset of an attack oftener than once in ten cases. We are admonished, however, that in the beginning of the epidemic the disease did prove fatal in many cases; not, however, from its malignancy, but, as we think, from the inefficiency of the practice by which it was met. Such as died were literally worn out by the excessively frequent and painful discharges, giving rise to irritative fever and emaciation. Ulceration, we are satisfied, did not occur once in three hundred properly treated cases.

Our attention was first directed to the value of Salines and Opiates in Dysentery, by an article in the Charleston Medical Journal for July, 1848, "on the comparative efficacy of certain medicines in the treatment of Dysentery and other intestinal Fluxes of hot climates."

Dr. Papillaud, the author of this paper, made his observations in a province of Brazil, in twenty-nine degrees of South latitude, and found the usual plan of treatment adopted in Paris with success, to fail entirely in this warm region.

"He experimented with castor oil, ipecacuanha, calomel, sulphate of soda; of the vegetable astringents, he tried rhatany and simarouba; of the mineral astringents, lime, acetate of lead, alum and nitrate of silver; of narcotics, extract of opium and sulphate of morphia; from the results of these experiments he determined to abide by sulphate of soda and opium, the effects of the other medicines being variable and uncertain." He says, "The English practice of calomel and castor oil is very unsuccessful." "Sulphate of soda, he thinks, deserves the praise it received from Bretonneau and Trousseau, acting energetically and most rapidly. One or two drachms dissolved in a small quantity of vehicle, and given in divided doses, usually arrest a dysentery in twelve, twenty-four, or forty-eight hours at the longest." He says, "Inflammation once considered a cause, is only one form, *alteration of secretion* another."

"The indications for local bleeding are very rare; that for general bleeding only as an exception." "Opium he considers equal to sulphate of soda, and together they formed one of the most efficacious combinations."

My first trial with this remedy was soon after its publication, and proved highly satisfactory. In a few sporadic cases I continued to use it with success. It was not, however, until the period referred to above, viz., the spring of 1851, that I had an opportunity of witnessing its effects on a large scale. Insensibly I fell into using Seidlitz Powders amongst my white patients, as being more agreeable, and finding free purgation to relieve both tormina and tenesmus, for about six hours I usually followed it up by a dose of morphine. The fractional doses of neutral salts and morphia were then resumed.

It was remarkable that in some cases, where hypercatharsis had been induced, (the patient in one instance taking one powder every half hour until eight were consumed) the recovery was most prompt.

Generally, when much opium had not been previously taken, from two to four Seidlitz Powders at half hour intervals, freely evacuated the bowels.

As regards pathology, I do not think inflammation of the mucous membrane of the colon so much as engorgement of it, can be predicated of a disease so easily relieved by a serous drain from the bowels, and so often independent of fever. Whether the neutral salts act also as a "*local modifier*" on the mucous membrane, according to the French view of this subject, or as a "*sedative*," I am unable to say.

In order to establish the claims of this method of treatment, and to vindicate it from the charge of empiricism, I subjoin reports from two of our most intelligent and respectable physicians. Dr. England says—

"Enclosed you find a list of cases of Dysentery that came under my care during the present year, up to date, 15th August, 1851. It comprises all ages, from infancy up to advanced age. All were subjected to the saline treatment except two in January, which were treated by mercury and opium, and but one death occurred among them. This was a case of unusual severity, first seen thirty-six hours after being attacked, yet under the use of Salines the Dysentery gradually yielded, so that in three days only slight sanguinolent discharges occasionally recurred, and these subsided entirely forty-eight hours or more before death, which occurred from nervous exhaustion, following the excessive excitement of the system. There were many other cases (where a single prescription relieved the Dysentery) that required no visiting or attention, of which I made no note."

"P. S. In addition to the above, there occurred thirty-five cases during the spring and summer in the Judson Institute, which did not come under my immediate care, yet were treated with salines according to my directions—all of which recovered."

Here follows the table referred to by Dr. England:

Months.	*Cases.*	*Recoveries.*	*Deaths.*
January,	4	4	0
February,	6	6	0
March,	8	8	0
April,	12	12	0
May,	14	14	0
June,	20	20	0
July,	14	13	1
August,	2	2	0
Total	80	79	1

Under date of August 12th, 1851, Dr. Bryant encloses me the following statement, arranged in a tabular form. He remarks: Agreeable to your request I send you the above list of cases of Dysentery, treated by myself during the present year."

Dys.	*Cured.*	*Died.*	*Adults over* 14.	*Children under* 14.	*Total.*
March 2,	2	0	1	1	
April 12,	12	0	8	4	
May 22,	22	0	7	15	
June 24,	24	0	10	14	
July 14,	14	0	6	8	
August 8,	8	0	3	5	82

I have Dr. Bryant's authority for saying, that with the exception of a single case, otherwise treated, these were all managed, with the highest degree of satisfaction to himself, by the use of Salines and Opiates. In the latter part of the epidemic he sometimes used Sup. Tart. Potass in the more protracted cases, with decided benefit.

These gentlemen here cited will bear me out in saying, that Calomel given to relieve the portal circulation excites a free gush of bile, which is, to use Dr. Johnson's language, like so much boiling lead, throws the irritable intestines into painful contortions, and then the tormina and tenesmus are intolerable ;" and hence, like myself, they abandoned its use for the Salines, which produced a gentle action on the liver and copious discharges from the bowels, quieting for a time all distress like a charm. The bile in these discharges was blunted by the quantity of fluid with which it was mingled.

In a report made to the Alabama State Association, at their last meeting, and published in their minutes, by Dr. F. A. Bates of Marion, we find the following remarks in reference to the treatment of Dysentery, as it appeared in 1851—the same epidemic of which we have been treating :

" As might be supposed in a disease which appeared so suddenly, and with which there was so little acquaintance, a great many remedies were suggested. The virtues of almost every therapeutic agent were discussed as to *its* applicability ; specifics sprung up like magic and magically wrought wonders ; every family had its infallible curative at first, but after a while its charm ceased ; quacks vended their *never failing* potions of drastic purgatives, with the assurance that they *never failed.* A physician even, most potent to save, condescended to prescribe, through the village journal, to whole communities at a dash, a sovereign specific, viz : Seidlitz Powders, ad libitum, and guarantee a cure by dinner time, from their *peculiar sedative effects.* We do not believe in *specifics* in the treatment of disease, and consequently must be pardoned for not using them as such ; but we firmly believe in the therapeutic application of many remedies in the same diseases, that others use as *specifics.*"

Again—

" I am fully sensible that local depletion by cupping, and the depletive influences of cathartics, *jars* the nerves of some over-sensitive practitioners, who have found a *sedative principle* in the operations of a dose of salts, but still they are just as effective as ever when judiciously applied."

I have quoted literally, as I do not wish to be held responsible for the gentleman's grammatical construction.

It is remarkable in these two paragraphs that a cunning attempt is made to couple the well-proven practice of a physician, with the nostrums of charlatans, and that he is not named in the report, lest it might interfere with its reception. It is not pleasant to be lectured on professional propriety by one who is likely to become notorious for his breaches of it, nor to be held up as maintaining views just the opposite of our own; but we shall continue always to discountenance a panic, and contribute to our fellow citizens and medical friends, both publicly and privately, our "mite" of aid. That these remarks emanate from ill-nature and pique is easily proven by the fact, that we are charged in one passage as giving Seidlitz Powders ad libitum to whole communities, and in the other as having our nerves jarred by "the depletive influences of cathartics." Dr. B. further says, "Of forty-eight cases that came under the treatment above specified, five proved fatal, and three ran into the ulcerative stage and recovered."

We endeavored last summer, when the reports of the other physicians were made, to draw from him this simple statement. We see now that his whole year's experience is little more than half of theirs in seven months. Further, will the gentleman deny, that commencing the treatment of this epidemic with the most decided objections to Salines, he was forced into using them at the hazard of losing his practice? Again, will he tell us what proportion of the five deaths resulted before his use of Salines? Perhaps after all they proved a *sedative* to his conscience.

We protest against any implication by which the Saline and Opiate practice is to lose its well-won laurels. It is well established in the affections of nearly every household in this town, and has justified our most sanguine expectations. We think we may safely say, that out of about five hundred cases treated in Marion, and the country lying within ten miles of it, after this mode, not more than four have proved fatal. Mercury in Secondary Syphilis, and Quinine in Intermittents, though we dare not call them "specifics," lest we "jar the over-sensitive nerves" of the Doctor, are the only remedies in given diseases that act with more certainty and success.

VIII.—PRACTICAL OBSERVATIONS ON TETANUS.

BY V. H. FUGATE, M. D. OF MISS.

A Hester, M. D.

Dear Sir—In the July No. for 1852 of your Journal, on page 87, I notice the following remark: "We are rather disposed to give the credit of the cure to the judicious regimen adopted by the physician, and to the lapse of time—*it being well understood* that this formidable disease is but little influenced by the most enlightened medication," etc. From the above remark I am induced to ask your indulgence while I detail a few cases (from my scrap-book) of Traumatic Tetanus, that have occurred in my practice.

First. Negro boy, aged about 15 years, had the balls of his first and second finger slightly split with the teeth of the gin-saw. No inconvenience resulted until the sixth day, when he was violently attacked with painful muscular rigidity and tetanic spasm of a general character, as I learned from his master.

Saw him on the seventh day (at night) after the accident; found him perfectly inflexible at every joint; could bend no joint; pulse quickened; surface warm; wounds on the fingers healed and dry; spasms frequent and severe, returning as often as one per minute, when undisturbed, though the slightest touch, the softest breeze, the least noise induced the spasms at any instant, always accompanied with a fearful and suppressed scream—his jaws being firmly locked. I applied a blister to the ends of his fingers; a batch of carded cotton from the nape to the sacrum, wet with turpentine, to which I applied a lighted torch, blistering him the whole length of the spine in an instant; gave him as much as a grain of Morphine, and ordered that as much good French brandy as he could be induced to swallow should be forced down him, with one grain of Morphine every hour, until some change obtained.

On my arrival next morning, twelve hours from the time I left him, no change had taken place, except that I could bend his knees slightly; the spasms less violent, though quite as frequent. He had taken twelve grains of morphine, and more than a pint of brandy. I now ordered that the brandy and Morphine be continued night and day, with the addition of 20 grains of Quinine three times a day, dissolved in the brandy, and that all the strong beef tea that he could swallow or retain by injection, be allowed him.

On my next visit the ensuing day, I was astonished at the amount of Morphine and brandy consumed, and rejoiced to find an abatement of all the symptoms. I continued this course for four days, without any

variation, except as the symptoms continued to abate, the amount of dose was correspondingly diminished, and the time between doses increased.

I neglected to mention, that on the second day, after I saw him, he drank a quart of brandy. I saw him three days after almost entirely relieved; dismissed him; brandy and Morphine were continued three times a day for several days, however. The boy recovered rapidly.

2d Case. Negro woman, aged 50, fell in the fire and burnt her hand. When the ulcer was quite healed she took general tetanus, assuming on the second day Opisthotonos. The spasms were violent, frequent and general; jaws so locked that I had difficulty in getting her to swallow any thing. I treated her alone with whiskey, Morphine, laudanum and beef tea, as in the former case, that is, forcing down as much as possible. She recovered in two weeks and three days.

Case 3d. Child, aged 11 years. Clothes caught on fire, burning nearly the whole surface; two weeks after the ulcers nearly healed, tetanic spasms made their appearance.

I saw her seven days after I had dismissed the treatment of her burns, in the most aggravated form of general tetanus, truly distressing, from her emaciated condition. I put her under the influence of Chloroform, which lasted half an hour. I then gave her a large dose of Morphine, ordering her to have as much brandy and Morphine as she could bear or swallow.

I repeated the Chloroform next morning, with entire relaxation as before, which, however, did not last long, the spasms returning in an hour, though much milder at first, and gradually increasing in severity and frequency.

After this I continued as before to prescribe brandy, Morphine and Quinine, with the most nutritious diet, for five days. Pronounced her cured.

Case 4th. Negro boy, frost bit toes. Ulcers became dry; Tetanus supervened.

I saw him four days after he had spasms first; could bend no joint; took him by the head and set him up on end like a log; could not get one drop of any thing down him; having, when undisturbed, two spasms per minute.

I gave him an enema of Chloroform and Camphor, and presently applied the Chloroform sponge to his nostrils, containing ʒ ii, gradually approaching it nearer and nearer, until I embraced his mouth and nose with the sponge; in three minutes he was as flexible as a string, and

breathing stertorously. This condition continued five minutes, when on puncturing his ear he opened his eyes. I gave him two grains of Morphine in this relaxed condition. The spasms returned slightly during the day.

Next morning put him under the influence of Chloroform again ; continued Morphine and brandy several days, as in the former cases ; he recovered rapidly.

I have treated several others in the same way. What say you?

Answer—Mayhap the cases recovered in spite of the Doctor's heroic doses. *Ed.*

IX.—PHILOSOPHY OF THE NEGRO CONSTITUTION,

Elicited by questions propounded by Dr. C. R. Hall of Torquay, England, through Professor Jackson, of Massachusetts Medical College, Boston, to Saml. A. Cartwright, M., D., New Orleans.

To PROF. JACKSON, Boston :

Dear Sir—The paper of mine, alluded to by your London correspondent, Dr. Hall, which he saw in the medical work you mention, is not, as he supposes, "*The Report on the diseases and physical peculiarities of the Negro race*," the Physicians of Louisiana, in convention assembled, appointed me to make ; but only some additional observations intended for students and those persons whose want of knowledge of Comparative Anatomy prevented them from understanding the Report. The appendix, intended for students, was published in the Charleston (South Carolina) Medical Journal, and also in the work you mention, under the caption of the original Report to the Medical Convention, and *the Report itself was omitted* by the editors of those works under the erroneous impression, that the appendix for students contained the substance of that paper ; whereas it does so only in the sense that the four first rules contain the substance of the arithmetic. No wonder your intelligent correspondent should not find, in the appendix of the report, the information he was seeking, and hence the questions he asks you to refer to me for solution. I herewith beg leave to send you a copy of the "*Report on the diseases and physical peculiarities of the Negro race*," which the Louisiana Physicians appointed me to make to the State Medical Society. In that paper your correspondent will find most of the questions he asks already answered.

I thank you for the opportunity thus afforded me of supplying an omission in the Southern works above alluded to, of a paper, very imperfect and defective, it is true, yet embodying in a small space the re-

sults of the experience and observation of a Southern practitioner, extending through a period of active service of a third of a century's duration, and which had the honor to meet with the approbation of the Physicians generally of the South. To the few questions not answered therein I propose to reply, and at the same time to extend my remarks on that branch of the subject more directly connected with the particular object of your correspondent's investigations.

To the question, "Is not Phthisis very common among the slaves of the slave States and unknown among the native Africans at home?" I reply in the negative, that Phthisis, so far from being common among the slaves of the slave States, is very seldom met with. As to the native Africans at home, little or nothing is known of their diseases. They have no science or literature among them, and never had. The word Consumption, is applied to two very different diseases among negroes. The Cachexia Africana, Dirt-eating of the English, and Mal d'Estomac of the French, commonly called Negro Consumption, is a very different malady from Phthisis Pulmonalis, properly so called. The Cachexia Africana, like other spanœmic states of the system, may run into Phthisis, or become complicated with it. Dr. Hall asks in what does the peculiarity of Negro Consumption consist? It consists in being an anœmatosis and not a tuberculosis. Not having seen my Report, he may have inferred that it was a tubercular disease—whereas it is an erythism of mind connected with spanæmia. Negroes, however, are sometimes, though rarely, affected with tubercula pulmonum, or Phthisis, properly so called, which has some peculiarities. With them it is more palpably a secondary disease than it appears to be among white people. European Physicians are just beginning to see and acknowledge the truth taught by our Rush in the last century, that what is called Phthisis Pulmonalis is not a primary, but a secondary disease; the tubercles of the lungs not being a cause, but an effect of the primary or original vice of blood origin, or as he called it, general debility. For half a century the attention of the medical profession has been directed to the special and ultimate results of Pthisis, instead of the primary condition of the system causing the formation of the tubercles. The new knowledge, derived from the stethoscope, by detecting those abnormal deposits of abortive nutrition, called tubercules, has been received for more than its worth, and has greatly served to keep up the delusion of treating effects instead of causes. The tubercular deposits, revealed by auscultation, are not only the effects of abortive nutrition, but the latter is itself the effect of some derangement in the digestive and respiratory functions, vitiating the nutritive fluids, and

producing what Rush called general debility. The defect in the respiratory organs arises from the fact, long overlooked, that in a great many persons, particularly the Anglo-Saxons, the lungs are inadequate to the task of depurating the superabundant blood, which is thrown upon them at the age of maturity, unless aided by an occasional blood letting, active and abundant exercise of the muscles in the open air, and a nutritious diet, as advised by the American Hippocrates, Benjamin Rush. White children sometimes have Phthisis, but here, as every where, it is a rare complaint before maturity (twenty-one in the male and eighteen in the female). The lymphatic and nervous temperament predominating until then, secures them against this fell destroyer of the master race of men. Phthisis is, par excellence, a disease of the sanguineous temperament, fair complexion, red or flaxen hair, blue eyes, large blood vessels and a bony encasement too small to admit the full and free expansion of the lungs, enlarged by the superabundant blood, which is determined to those organs during that first half score of years immediately succeeding puberty. Well-formed chests offer no impediment to its inroads, if the volume of blood be out of proportion to the expansibility and capacity of the pulmonary organs. Hence it is most apt to occur precisely at, and immediately following, that period of life known as matureness, when the sanguineous system becomes fully developed and gains the mastery, so to speak, over the lymphatic and nervous systems. With negroes, the sanguineous never gains the mastery over the lymphatic and nervous systems. Their digestive powers, like children, are strong, and their secretions and excretions copious, excepting the urine, which is rather scant. At the age of maturity they do not become dyspeptic and feeble with softening and attenuation of the muscles, as among those white people suffering the ills of a defective system of physical education, and a want of a wholesome, nutritious diet.

Your correspondent asks, "*Do the slaves consume much sugar, or take rum in intoxicating quantities ?*"

They do not consume much sugar, but are occasionally supplied with molasses. Their diet consists principally of pickled pork and corn bread, rice, hominy, beans, peas, potatoes, yams, pumpkins and turnips. Soups, tea, coffee and slops, are seldom used by those in health, and they object to all such articles of diet as making them weak. They prefer the fattest pork to the lean. In the Atlantic States salted fish is substituted for or alternated with pork—the shad, mackerel and herring, principally the latter. In Cuba pickled beef is used, but they prefer pork. Their diet is of the most nutritious kind, and they will not labor

with much effect on any other than a strong, rich diet. With very few exceptions, they do not take rum or other intoxicating drinks, except as a medicine, or in holiday times. Something equivalent to the "*Maine Liquor Law*" (which you can explain to your correspondent,) has long been in practical operation on all well regulated Southern plantations. The experience of two centuries testifies to the advantages of restraining the black population, *by arbitrary power*, from the free use of intoxicating poisons. Man has no better natural right to poison himself or his neighbor, than to maim, wound or kill himself or his neighbor. In regard to intoxicating drinks, the negroes of the South are under wiser laws than any other people in the Union—those of Maine excepted. But these wise unwritten laws do not so well protect those negroes who reside in or near towns and villages, and are not under proper discipline. The Melanic race have a much stronger propensity to indulge in the intemperate use of ardent spirits than white people. They appear to have a natural fondness for alcoholic drinks and tobacco. They need no schooling, as the fair skin races do, to acquire a fondness for either. Nearly all chew tobacco or smoke, and are not sickened and disgusted with the taste of that weed as white men always are when they first begin to use it. As an instance of their natural love for ardent spirits, I was called to a number of negro children, who found a bottle of whiskey under a bed, and drank it all without dilution, although it was the first they had ever tasted. It contained arsenic, and had been placed where they found it by the father of some of the children, with a view of poisoning a supposed enemy. But with that want of forethought, so characteristic of the negro race, he did not think of the greater probability of his own children finding and drinking the poison than the enemy he intended it for.

"I am asked, "*If I have determined by my own observation the facts in regard to the darker color of the secretions, the flesh, the membranes and the blood of the negro than the white man—or is the statement made on the authority of others?*"

The statement is made on the authority of some of the most distinguished anatomists and physiologists of the last century, confirmed by my own repeated observations. The authorities to which I particularly refer are Malpighi, Stubner, Mackel, Pechlin, Albinus, Sœmmering, Verey and Ebel. Almost every year of my professional life, except a few years when abroad, I have made post mortem examinations of negroes, who have died of various diseases, and I have invariably found the darker color pervading the flesh and the membranes to be very evi-

dent in all those who died of acute diseases. Chronic ailments have a tendency to destroy the coloring matter, and generally cause the mucous surfaces to be paler and whiter than in the white race.

I now come to the main and important question—the last of the series, and the most important of all, viz: "*How is it ascertained that negroes consume less oxygen than white people?*"

I answer, by the spirometer. I have delayed my reply to make some further experiments on this branch of the subject. The result is, that the expansibility of the lungs is considerably less in the black than the white race of similar size, age and habit. A white boy expelled from his lungs a larger volume of air than a negro half a head taller and three inches larger around the chest. The deficiency in the negro may be safely estimated at 20 per cent, according to a number of observations I have made at different times. Thus, 174 being the mean bulk of air receivable by the lungs of a white person of five feet in height, 140 cubic inches are given out by a negro of the same stature. It must be remembered, however, that great variations occur in the bulk of air which can be expelled from the chest, depending much upon the age, size, health and habits of each individual. But, as a general rule, it may be safely stated, that a white man, of the same age and size, who has been bred to labor, is, in comparison to the negro, extra capacious. To judge the negro by spirometrical observations made on the white man, would indicate, in the former, a morbid condition, when none existed. But I am free to confess that this is a subject open to further observations. My estimate may be under or over the exact difference of the capacity of the two races for the consumption of oxygen.

The question is also answered *anatomically*, by the comparatively larger size of the liver, and the smaller size of the lungs; and *physiologically*, by the *roule* the liver performs in the negro's œconomy being greater, and that of the lungs and kidneys less, than in the white man. But I have not the honor to be the first to call attention to the difference in the pulmonary apparatus of the negro and the white man, and to the fact of the deficiency in the renal secretion. The honor is due to Thomas Jefferson, the third President of the United States. In his Notes on Virginia, Mr. Jefferson suggested that there was a difference in the pulmonary apparatus of negroes, and that they do not extricate as much caloric from the air by respiration, and consequently consume less oxygen. He also called attention to the fact of the defective action of the kidneys. He remarks, "To our reproach be it said, that although the negro race has been under our eye for a century and a half, it has not

been considered as a subject of natural history." Another half century has passed away, and nothing has yet been done to acquire a knowledge of the diseases and physical peculiarities of a people, constituting nearly a moiety of the population of fifteen States of the American confederacy, and whose labor, in cultivating a single plant, which no other operatives but themselves can cultivate, without sacrificing ease, comfort, health and life, affords a cheap material, in sufficient abundance, to clothe the naked of the whole world. Even the little scientific knowledge heretofore acquired concerning them, has been so far forgotten, that when I enumerated a few of their anatomical and physical peculiarities, well known to the medical men of the seventeenth and eighteenth centuries, I was supposed by some of my cotemporaries in the South to be broaching novelties and advancing speculations wild and crude. But I would not be understood as underrating the editors of the Charleston Medical Journal and some other Southern writers, for mistaking anatomical facts for wild speculations, and condemning them as such in their editorial apologies for not publishing the same. The fault lies not with them, but in that system of education which seems intended to keep physicians, divines, and all other classes of men in Egyptian darkness of every thing pertaining to the philosophy of the negro constitution. It is only the country and village practitioners of the Southern States (among professional men), who appear to know any thing at all about the peculiar nature of negroes—having derived their knowledge, not from books or schools, but in the field of experience. It is the latter class of medical men, by far the most numerous in the South, who have with great unanimity sustained my feeble efforts to make the negro's peculiar nature known, and the important fact that he consumes less oxygen than the white man. Until his defective næmatosis be made an element in calculating the best means for improving the negro's condition, our Northern people ought not to wonder at finding their colored population, born to freedom, by the side of the church and school house door, in a lower species of degradation, after trying for half a century or more to elevate them, than an equal number of slaves any where to be found in the South. "Will not a lover of natural history," says Mr. Jefferson, "one who views the gradations in all the races of animals with the eye of philosophy, excuse an effort to keep those of the department of man as distinct as nature formed them?" But no effort has since been made to draw the distinctions between the black and the white races by the knife of the anatomist, but much false logic has been introduced into our books and schools, to argue down the distinctions which Nature has made. It is to Anatomy and Physiology

we should look, when vindicating the liberty of human nature, to see that its dignity and best interest be preserved. "Among the Romans," says Mr. Jefferson, "emancipation required but one effort, but with us a second is necessary, unknown to history." This second belongs properly to Natural History; the difference in the last not being artificial, as among the Romans, or the present Brittons, requiring only an act of legislation or a revolution to efface for ever, but natural, which no human laws or governmental changes can ever obliterate. The framers of our constitution were aware of these facts, and built the constitution upon the basis of natural distinctions or physical differences in the two races composing the American population. A very important difference between the two will be found in the fact of the greater amount of oxygen consumed by the one than the other. If the constitution be worth defending, surely the great truths of Natural History, on which it rests as a basis, are worth being made known and regarded by our statesmen. That negroes consume less oxygen than the white race is proved by their motions being proverbially much slower, and their want of muscular and mental activity. But to comprehend fully the weight of this proof of their defective hæmatosis, it is necessary to bear in mind one of the great leading truths disclosed by comparative anatomy. Cuvier was the first to demonstrate beyond a doubt that muscular energy and activity are in direct proportion to the development and activity of the pulmonary organs. In his 29th Lesson, vol. 7, p. 17, D'Anatomie Comparée, he says, "*Dans les animaux vertebrés cette quantité de respiration fait connaître presque par un calcul mathématique la nature particulière de chaque classe.*" In the preceding page he says,—"That the relations observed in the different animals, between the quantity of their respiration and the energy of their motive force, is one of the finest demonstrations that Comparative Anatomy can furnish to Physiology, and at the same time one of the best applications of Comparative Anatomy to Natural History." The slower motions of the owl proves to the natural historian that it consumes less oxygen than the eagle. By the same physiological principle he can tell that the herring is the most active among fish, and the flounder the slowest, by merely seeing the gills of each: those of the herring being very large, prove that it consumes much oxygen and is very active; while the flounder, with its small gills, consumes but little, and is very slow in its motions as a necessary consequence. Hence the habitual slower motions of the negro than the white man, is a positive proof that he consumes less oxygen. The slow gait of the negro is an important element to be taken into consideration in studying his nature. I have the authority

of one of the very best observers of mankind, that this element in the negro's œconomy is particularly worthy of being studied. It is no less an authority than the father of his country, the first President of the United States, the illustrious Washington. Washington knew better, perhaps, than any other man what the white man could do; his power of endurance and strength of wind under a given speed of motion. Yet he found that all his observations on the white race were inapplicable to negroes. To know what they could do, and to ascertain their power of endurance and strength of wind, new observations had to be made, and he made them accordingly. He made them on his own negroes. He saw they did not move like the soldiers he had been accustomed to command. Their motions were much slower, and they performed their tasks in a more dilatory manner; the amount of labor they could perform in a given time, with ease and comfort to themselves, could not be told by his knowledge of what white men could do. He therefore noted the gait or movements natural to negroes, and made observations himself of how much they could effect in a given time, under the slow motions or gait natural to them. He did this to enable him to judge of what would be a reasonable service to expect from them, and to know when they loitered and when they performed their duty. Those persons unacquainted with the important truth that negroes are naturally slower in their motions than white people, judging the former by the latter, often attempt to drive them into the same brisk motions. But a day's experience ought to be enough to teach them that every attempt to drive negroes to the performance of tasks equal to what the white laborer would voluntarily impose upon himself, is an actual loss to the master; who, instead of getting more service out of them, actually gets less, and soon none, if such a course be persisted in; because they become disabled in body and indisposed in mind to perform any service at all. Every master or overseer, although he may know nothing of the law, above mentioned, discovered by Cuvier, may soon learn from experience the important fact, that there is no other alternative than to let their negroes assume, *by their own instincts*, the natural gait or movement peculiar to them, and then, like Washington, observe what can be effected in a given time by that given gait or movement, and to ask for nor expect more. In Vol. 2, pages 511 to 512, (*Washington's Writings, published by Jared Sparks*) are recorded a few of the observations made by the father of his country on his own slaves, as an illustration of the preceding remarks. It is to be regretted that Mr. Sparks, out of deference to a modern species of idolatry (all fanaticism is idolatry), which has taken deep root in Great Britain and despotic Europe,

and has from thence been transplanted into our republic, particularly in the Northern portion of it, should have suppressed so much of the valuable observations of Washington on the negro race, as only to publish a small fragment of the extensive knowledge his comprehensive mind had stored up on this important subject, well known to his neighbors. The fragment informs us, that on a certain day he visited his plantations, and found that certain negro slaves there mentioned, by the names of George, Tom and Mike, had only hewed a certain number of feet—whereupon Washington sat down and observed their motions, letting them proceed their own way," and ascertained how many feet each hewed in one hour and a quarter. He also made observations on his sawyers at the same time and in the same manner. From the data thus acquired he ascertained, in the short space of an hour and a quarter, how many feet would be a day's work for hewing, and how many for sawing, under their usual slow gait or movement. This hewing and sawing were of poplar. "What may be the difference, therefore," says Washington, "between the working of this wood and other, some future observations must make known." But Mr. Sparks, out of deference to the new school of idolatry, having its head quarters in Exeter Hall, omitted, almost entirely, the publication of any more observations on the subject. It is no less idolatry to set up an anti-Scriptural dogma and to make it a rule of action, than to worship a block or a graven image in the place of the true God. The true God has said in the Pentateuch, the most authentic books of the Bible, "*And of the heathen shall ye buy bondmen and bondmaids* [slaves] *and your children shall inherit them after you, and they shall be your bondmen* [slaves] *for ever.*" Leveticus, Chap. 25, verses 44, 45, 46. But the Dogma or Negro god of Exeter Hall says that "*negro slavery is sin,*" and that it is contrary to the moral sense or conscience. Medicine was anciently called the divine art; to be entitled to hold that appellation, ought it not to lend its aid to arrest in this happy republic the progress of idolatry, which is only another name for fanaticism? And will your learned correspondent help to arrest it in England? Or will he, like Prichard, Todd, and others, make science bow to the policy of his government?—To build up India at the expense of our Union? The subject of his investigations, tubercular disease, if properly studied, leads directly to that species of knowledge, enabling him to determine on physiological principles, which is the best system of ethics, that taught in the Bible, *to enslave the Canaanite*, or that taught in Exeter Hall, *to set him free.* It will lead him to the discovery, that the negro, or Canaanitish race, consumes less oxygen than the white, and that as a necessary consequence

of the deficient aeration of the blood in the lungs, a hebitude of mind and body is the inevitable physiological effect ; thus making it a mercy and a blessing to negroes to have persons in authority set over them, to provide for and take care of them. Under the dogma or new commandment to free the Canaanite, practically exercised in Van Dieman's Land and at the Cape of Good Hope, the poor negro race has become nearly annihilated. Whereas under that system of ethics taught in the Bible and made a rule of action in the Southern States, the descendants of Canaan are more rapidly increasing in numbers, and have more of the comforts and pleasures of life, and more morality and Christianity among them than any others of the same race on any other portion of the globe. They are daily bought and sold, and inherited as property, as the Scriptures said they should be. Whereas in all those countries and places in which they are set free, in obedience to the dogma that "slavery is sin," they rapidly degenerate into barbarism, as they are doing in the West Indies, or become extinct as in Van Dieman's Land. The physiological fact that negroes consume less oxygen indicates the superior wisdom of the precepts taught in the Bible regarding those people, to any promulgated from Exeter Hall. Experience also proves the former to be the best. You hear of the poor negroes, or colored people, as you call them, being beaten with many stripes by their masters and overseers. But owing to the fact that they consume less oxygen than white people, and the other physical differences founded on difference of structure, they beat one another, when free from the white man's authority, with ten stripes where they would get one from him. They are as much in slavery in Boston as in New Orleans. They suffer more from corporeal or other punishments in the cellars and dark lanes and alleys of Boston, New York and Philadelphia, by the cruel tyranny practised by the strong over the weak and helpless, than an equal number in Southern slavery. In slavery the stripes fall upon the evil disposed, vicious, buck negro fellows. But when removed from the white man's authority, the latter make them fall on helpless women and children, the weak and the infirm. Good conduct, so far from being a protection, invites aggression.

But what connection have these observations, you may say, with the subject of Dr. Hall's inquiries, and what light do they throw on tubercular disease ? They show that there exists an intimate connection between the amount of oxygen consumed in the lungs and the phenomena of body and mind. They point to a people whose respiratory apparatus is so defective, that they have not sufficient industry and mental energy to provide for themselves, or resolution sufficiently strong to

prevent them, when in freedom, from being subjected to the arbitrary, capricious will of the drunken and vicious of their own color, who may happen to have greater physical strength and more cunning; they show that Phthisis is a disease of the master race, and not of the slave race—that it is the bane of that master race of men, known by an active hæmatosis; by the brain receiving a larger quantity of aerated blood than it is entitled to ; by the strong development of the circulating system ; by the energy of intellect ; by the strength and activity of the muscular system ; the vivid imagination ; the irritable, mobile, ardent and inflammatory temperament, and the indomitable will and love of freedom. Whereas the negro constitution, being the opposite of all this, is not subject to Phthisis, although it partakes of what is called the scrofulous diathesis. In the negro constitution, as the Frenchman would say, "*l'arbre arteriel cede sa prominance à l'arbre veineuse*," spreading coldness, languor and want of energy over the entire system. The white fluids, or lymphatic temperament, predominating, they are not so liable as the fair race, to inflammatory diseases of the lungs, or any other organ; but from the superabundant vicidities and mucosities of their mucous surfaces, they are more liable to engorgements and pulmonary congestions than any other race of men. In proof of which I beg leave to refer your correspondent to a standard work entitled "*Osbervations sur les Maladies des Negres, par M. Dazille. Paris*, 1776."

Pneumonia, without subjective symptoms, is very common among them. Diphtheretic affections, so common among white children, are very rare among negroes. Intercurrent Pneumonia is more common among them than any other class of people. It is met with in Typhoid fevers, Rheumatism and hepatic derangements, to which they are very liable in the cold season. The local malady requires a different treatment, to correspond with the general disorder. Bad, vicious, ungovernable negroes are subject, to what might properly be termed, Scorbutic Pneumonia—a blood disease, requiring anti-scorbutics. Scorbutic negroes are always vicious or worthless. A course of anti-scorbutics will reform their morals, and make good negroes out of worthless ones. They are liable to suffocative orthopnœa after measles, and die unless bled and purged. But purgatives are injurious in almost all their other affections involving the respiratory organs, except such as act especially on the liver. They check expectoration, says Dazille, and lay the foundations of those effusions and depots of matter so often mistaken for genuine Phthisis. Auscultation cannot well be made available with them. The nose pleads to the eye and touch to form the diagnosis, without calling into requisition the ear. A single examination by auscultation,

in persons abounding with so much phlegm, is not sufficient to arrive at a correct diagnosis. Repeated examinations in various postures are too tedious in execution, and too offensive to the auscultator, to come into general use in diagnosing the diseases of the melanic race. This valuable mode of exploration, so useful in many cases, as practised by experts, has of late years been carried to a ridiculous extreme, in being made to deceive and delude more practitioners than it enlightens, from the haste and inexperience of those who practice it. With negroes it is unnecessary, except in some rare instances. Their diseases, like their passions, have each its peculiar expression stamped in the countenance. They are like young children in this respect. They cannot disguise their countenance like white people. An intelligent and observant overseer can tell from their countenance when they are plotting mischief, or have committed some crime; when they are satisfied or dissatisfied; when in pleasure or in pain; when troubled or disturbed in mind; or when telling a falsehood instead of the truth. An observant physician has only to bring the old science of prosoposcopia, so much used by Hippocrates in forming his diagnosis, to bear upon negroes, to be able, by a little experience, to ascertain the most of them at a glance by the expression of their countenance.

They are very subject to fevers attended with an obstructed circulation of air and blood in the pulmonary organs. Their abundant mucosities often prevent the ingress of air into the air cells, bloating their lips and cheeks, which are coated with a tenacious saliva. A cessation of digestion from too full a meal, or some hepatic or other derangement, is soon attended with such a copious exudation of mucosities, filling the air cells and tracheal passages, as to cause apoplexy, which with them is only another name for asphyxia. The head has nothing to do with it. So abundant are the mucosities in negroes, that those in the best health have a whitish, pasty mucus, of considerable thickness on the tongue, leading a physician not acquainted with them to suppose that they were dyspeptic, or otherwise indisposed. The lungs of the white man are the main outlets for the elimination of carbonic acid formed in the tissues. Negroes, however, by an instinctive habit of covering their mouth, nose, head and face with a blanket, or some other covering, when they sleep, throw upon the liver an additional duty to perform, in the excretion of carbonic acid. Any cause, obstructing the action of the liver, quickly produces with them a grave malady, the retention of carbonic acid in the blood soon poisoning them.

Hence with white people a moderate degree of hepatic obstruction, by a residence in swampy districts, is often found beneficial in dimin-

ishing the exalted sensibility and irritability of phthisical patients. Viscous engorgements of the lungs destroy more negroes than all other diseases combined. They are distinguished from inflammatory affections by the pyrexial symptoms not being strongly marked, or marked at all—by the puffy or bloated appearance of the face and lips —by the slavering mouth—the highly charged tongue—and by the torpor of mind and body. In a word, all the symptoms point to a deficient aeration of the blood, or a kind of half way asphyxia. A torpid state of the system, listlessness and inactivity almost approaching to asphyxia from the diminished quantity of oxygen consumed by the lungs of the negro, form a striking contrast with the energetic, active, restless, persevering Anglo-Saxon, with a tendency to phlogosis and phthisis pulmonalis, from the surplus quantity of oxygen consumed by his lungs. Blistering the nape of the neck, so irritating in nearly all of the diseases of the Saxon race, is almost a sovereign remedy or specific for a large proportion of the complaints that negroes are subject to; because most of them arise from defective respiratory action. Hence whipping the lungs to increased action by the application of blisters over the origin of the respiratory nerves, a remedy so inexpedient and so often contra-indicated in most of the maladies of the white man, has a magic charm about it in the treatment of those of the negro. The magic effect of a blister to that part of the Ethiopian's body, in a large class of his ailments, although well known to most of the planters and overseers of the Southern States, is scarcely known at all to the medical profession beyond those boundaries. Even here, where that portion of the profession who have had much experience in the treatment of their diseases, and are aware of the simple fact itself, do not profit by it in many cases where it is indicated; because they do not perceive the indication clearly, so long as the rationale of the remedy remains unexplained.

Your asking for the proofs of my assertion, "that the negro consumes less oxygen than the white man," has led me into a new, extensive and unexplored field of science, where the rationale of that and many other important facts may be found springing up spontaneously. We have medical schools in abundance teaching the art of curing the ailments, and even the most insignificant sores, incident to the half-starved, oppressed pauper population of Europe—a population we have not got, never had and never can have, so long as we have negro slaves to work in the cane, cotton and rice fields, where the white man, from the physiological laws governing his œconomy, *cannot labor and live:* but where the negro thrives, luxuriates and enjoys existence more than

any laboring peasantry to be found on the continent of Europe; yet we have no schools or any chair in our numerous institutions of medical learning to teach the art of curing and preventing the diseases peculiar to our immense population of negro slaves, or to make them more efficient and valuable, docile and manageable; comfortable, happy and contented by still further improving their condition, which can only be done by studying their nature, and not by the North and South bandying epithets—not by the quackery which prescribes the same remedy, the liberty elixir, for all constitutions. The two races, the Anglo-Saxon and the negro, have antipodal constitutions. The former abounds with red blood, even penetrating the capillaries and the veins, flushing the face and illuminating the countenance; the skin white; lips thin; nose high; hair auburn, flaxen, red or black; beard thick and heavy; eyes brilliant; will strong and unconquerable; mind and muscles full of energy and activity. The latter, with molasses blood sluggishly circulating and scarcely penetrating the capillaries; skin ebony, and the mucous membranes and muscles partaking of the darker hue pervading the blood and the cutis; lips thick and protuberant; nose broad and flat; scalp covered with a coarse, crispy wool in thick naps; beard wanting or consisting of a few scattering woolly naps, in the "*bucks*," provincially so called; mind and body dull and slothful; will weak, wanting or subdued. The study of such opposite organizations, the one prone to Phthisis and the other not, cannot fail to throw some light on tubercular disease, the subject of your correspondent, Dr. Hall's present investigation. In contrasting the typical white man, having an excess of red blood and a liability to inflammatory and tuberculous complaints and disorders of the digestive system, with the typical negro, deficient in aerated blood, and abounding in mucosities, having an active liver and a strong digestion, and a proclivity strongly marked to fall into congestions, or cold humid engorgements approaching asphyxia, I hope he will be able to find in this unpolished communication something useful.

I have the honor to be, with great respect,

SAML. A. CARTWRIGHT, M. D.

X.—ARTIFICIAL RESPIRATION.

BY ALBERT WELLES ELY, A. M. M. D., NEW ORLEANS.

The bills of mortality, especially in our large cities, exhibit the fact, that there is no disease prevailing among the juvenile population more destructive than that called *Infantile Convulsions*, *Epilepsia acuta Infantum*, *Convulsions des Enfans*. It prevails with especial fatality among children under two years of age, a period of infancy when the infantile nervous system exhibits extreme impressibility, and is liable to be thrown into convulsions by the slightest disturbing causes. All children, however, are not equally subject to these convulsions. Those of large development of the nervous system, large heads, and of precocious intellects, are more especially subject to them.

Infantile Convulsions sweep off large numbers of children annually; and this is especially true of late years, particularly in the Northern cities. We think that this class of diseases among children deserves more attentive study than it has hitherto received, and that much can be done to diminish its mortality.

We have recently had a case of Infantile Convulsions, of a very formidable character, in which we were entirely successful, after three highly respectable physicians, called in for consultation, had pronounced it hopeless. We give it publicity, for the purpose of calling the attention of the profession to a feature in the mode of treatment, which we believe is almost unknown in practice, in such cases—that of *artificial respiration*.

The case was that of my youngest infant boy, William F. Ely, aged four months, who on the 24th of June last became seriously ill, from a diarrhœa which had been slowly increasing for two or three days previous. The use of a preparation of kino, on the morning of the 25th, was found to have arrested the diarrhœa, but leaving the child in a comatose state, with slight convulsive agitations of the muscles of the face and other parts of the body. The child lay apparently unconscious, mouth wide open, breathing sterterously, countenance ghastly pale, the tongue constantly exhibiting a slight quivering motion, the eyes fixed and half open, and the slightest sudden noise causing every muscle of the body to "jump."

At about one o'clock on the 25th, the child was seized with the most violent convulsions, purely opisthotonotic in their character, and occurring every half hour. The phenomena were in the following order: The child at first exhibited great distress by crying and throwing its head from right to left; in a moment afterwards violent twitchings of

the arms followed, with lividity of countenance and a rolling up of the eyes. The mouth was constantly wide open, with no frothing or biting of the tongue, as in epilepsy. The head and feet were violently thrown backwards, curving the spine into a bow.

At first these fits were of short duration, but became longer and more violent, each one threatening to be his last and fatal one. The use of the hot foot bath seemed to arrest the convulsions at first, but they soon failed altogether to suspend them, and the child, instead of coming out of the fit, as in the first attacks, and appearing conscious, lost all consciousness, and appeared to be dead. The countenance was ghastly, the eyes open, set and glassy, the lower jaw fallen, the body entirely flaccid, the circulation entirely suspended, so far as I could discover from a close examination, the respiration entirely suspended, the extremities cold—in short, the child was dead, at least to all appearance.

On seeing this termination, I was compelled to pronounce the child dead. I rose up, paced the room two or three times, thinking upon what could be further done, when it occurred to me that *artificial respiration* might restore suspended animation. I flew to the child, laying in its mother's arms, placed my left hand on its chest, closed the nostrils with the thumb and finger of my right, and applied my mouth to that of the child. I inflated the lungs gently, and as completely as possible, four or five times, when a rattling noise in the throat and a gasp announced the return of animation. Another inflation completed the work, and the little child once more breathed. I wish it to be particularly recollected, that during the process of artificial respiration the child was kept wrapt in blankets, and its feet and legs were kept in water as hot as it could bear.

After the first restoration of animation, two doses of laudanum of 10 drops each were given, per enema, in the course of one hour, and then entirely stopped; but finding that the convulsions would return, after the second use of artificial respiration, under precisely the same circumstances as the first above related, two leeches were applied behind the ear, one on each mastoid process; and at the same time we began giving, per enema, one grain of quinine in chicken soup, every two hours.

Under this treatment the intervals between the convulsions became longer, until finally they ceased altogether. The leeches were suffered to take as much blood as they would, and the quinine enemata were continued.

The last fits, although at greater intervals, were the longest and most severe, owing probably to the exhausted state of the child. In the last,

which was the seventh or eighth inflation, I almost despaired of seeing the child breathe again; but by applying additional heat to the surface of the body, by plunging it entire into a hot bath, and at the same time persevering in the inflation, animation was restored. I am satisfied that the difficulty in the last case was owing to the temperature of the body having somewhat fallen.

In all this treatment, I am confident that there was but one thing that saved the child's life—the *Artificial Respiration*. The other means undoubtedly prolonged the intervals between the convulsions, by allaying the excitement, and strengthening the nervous system; but at the close of every fit, after the first three or four, which were very transitory, the child lost its respiration and circulation, and assumed all the other appearances of complete death. All pronounced him dead; and I have no doubt that he would have remained so, if I had not resorted to artificial respiration. In Infantile Convulsions children perish in the fit. When, as in the above case, the child at the close of the convulsions, loses its circulation and respiration, and assumes all the appearances of death, the child is abandoned as dead, it being supposed that nothing more can be done. Thousands thus perish, who might be restored by artificial respiration. It must be borne in mind, though, that in the use of the hot bath we used mustard in the last; it is absolutely indispensable to success. If the temperature of the body is suffered to fall below the natural standard, artificial respiration will be of no avail.

The pathology of Infantile Convulsions is, as in all the neuroses, exceedingly obscure; that is to say, we only know that the nervous system is the seat of the disease. It seems most probable that the disease is purely functional, the parts affected being the spinal cord, involving the medulla oblongata and the base of the brain. Hyperæmia is probably the pathological condition. This we infer from the action of remedies. The disease being purely nervous—mere disorder of function—the entire machine, nervous and muscular, was complete; but the vital force was so much exhausted by convulsions, that the nerves distributed to the heart and lungs were too feeble to move them. Although every thing was complete, there was not force enough in the system to move the muscles engaged in respiration; hence the necessity of moving them *artificially*, until the machine got fully in motion.

We would call the special attention of the profession to the use of Artificial Respiration, in Infantile Convulsions, because we conscientiously believe it our duty to do so. We believe it may be the means

of saving the lives of thousands, who now, under the usual treatment, perish. Let every physician try it. It is an easy remedy, and one which, in the absence of organic disease, can do no harm.

To sum up from the foregoing—the following treatment we would recommend in cases of Infantile Convulsions :

1. Immediately after the first fit give Tinct. Opii x guttas every half hour per enema, until two or three doses are given, and at the same time commence enemata of Sulph. Quin. 1 grain in chicken soup, every two hours.

2. Apply, as early as possible, two leeches to the base of the brain —one behind each ear, on the mastoids. Suffer them to bleed freely.

3. If at the end of the fit the child ceases to breathe, and the heart to beat, and the child appears to be dead or dying, immediately resort to gentle *artificial respiration.* I say *gentle,* because the lungs are very tender, and violent inflation might rupture them. It must not be forgotten, too, that the feet and legs, or what would be better, the whole body, must be immersed in a hot-water bath, as hot as the child could bear, if well. Without this all inflation would be in vain. At the very commencement of the fits, the first thing should be to put the child into a hot bath, and keep the body well wrapped, to preserve the natural temperature.

4. Continue the Quinine enemata one or two days.

This treatment of Infantile Convulsions, by means of artificial respiration, may be said to afford an argument in favor of Mrs. Willard's new theory of the motive power of the blood, now advocated by my learned friend, Dr. Samuel A. Cartwright—a theory which I have recently controverted. Well, what if it does ? My object is truth, science and genuine philosophy. I would not conceal a scientific truth, even if it overturned and completely falsified every old or new theory that I ever supported, or continue to support, and every line that I ever wrote. We are simply searching for truth ; and if I discover a solitary fact to-day which overturns a theory that I supported yesterday, would I not forfeit all my right and title to the rank of being an humble follower of science, by concealing that solitary fact ? He is a fanatic, a monomaniac, who doggedly adheres to any theory, in the face of facts.

By all this, however, I do not wish to be understood as admitting —though I would if I could—that my success in the above case, in the use of artificial respiration, at all favors the theory that the chief motive power of the blood is in the lungs. The suspended animation in

the above case was owing to asphyxia; or a stagnation in the pulmonary radicles whereby the left ventricle ceased to be supplied with its appropriate stimulus, arterial blood. The heart ceased its action from this cause alone. The difficulty was removed by artificial respiration. By inflating the lungs oxygen was brought in contact with the pulmonary capillaries, carbonic acid displaced, the blood duly arterialized, and the stagnation or retardation of the fluid in the pulmonary capillaries removed. The blood, thus artificially oxygenated, was made to flow freely to the left ventricle, which, thus receiving its appropriate stimulus, resumed its contractions. The whole system being thus again supplied with arterialized blood, life was restored. All that the artificial respiration did was to change the venous blood, which clogged up and retarded the circulation in the pulmonary capillaries, to arterial blood, which arterial blood stimulated the heart into action, and thus restored the circulation. It is a well established fact in physiology, that venous blood clogs up the pulmonary capillaries, so that they cease to allow circulation. The moment, however, that oxygen is brought in contact with the venous blood in the pulmonary capillaries, its quality is entirely changed, so that it can flow, and, of course, it flows towards the left ventricle. Its changed quality alone enables it to flow. The lungs themselves are entirely passive. The pulmonary capillaries are merely hydraulic tubes, fitted to circulate a particular fluid—oxygenated blood. Deoxygenated blood clogs them up, and finally stops the circulation through them altogether. The idea supported by Mrs. Willard and her adherents, that the circulation in the lungs is due to a *vis a tergo*, created by an expansion of the blood by heat, loses sight entirely of the fact, that venous blood does not flow freely through the capillary system of the lungs. According to this new theory, both venous and arterial blood ought to flow equally well through the pulmonary capillaries; but such is not the case, and hence the new theory is incorrect.

We might enlarge to a great extent on this interesting subject; but as we have, in the last number of this Journal, given, in full, arguments which, as we conceive, completely overthrow the new theory, we deem it unnecessary to extend this paper. We are not, however, so vain as to suppose that we are entirely free from error. We reason from such facts as we know; and we leave our theories always open to such modifications as new facts may require. Dogmatism, in matters of pure science, betrays always a weakness, a vanity, which finds an excuse only in the short vision of man, and in the, as yet, imperfect developments of humanity.

XI.—A FEW REMARKS ON HÆMATOKINETY.

BY SAML. A. CARTWRIGHT, M. D.

What is hæmatokinety? It is a newly discovered principle in Medicine. It covers a practical field of vast extent and but partially explored. The North first announced its existence as a theory. The South was the first to prove it by direct experiment and actual demonstration. The discovery is wholly American. As yet it is very little known. Hæmatokinety consists not only in the discovery of those laws or principles which give life and motion to the blood, but in subjecting those laws to human control. It represents both the life giving principle and the blood moving power. It has proved its existence by raising the dead. Witness the dead alligator it called to life, as reported by me in the Boston Medical and Surgical Journal of Jan. last, and proved by the testimony of three respectable eye witnesses of this city. Witness the child I brought to life, reported in the same paper—and witness its effects upon an alligator dead and cut to pieces, in restoring animation and sensation to the pieces, as certified by ten physicians of New Orleans, and published in Boston on the 7th of the present month of July. Yet hæmatokinity is not received without opposition. A powerful combination of the most learned and talented physicians of the South have lately attempted to put it down and to scoff it from the earth. They went out to war against it, certain of a sure and easy victory. Dr. Albert W. Ely, a most able writer, a scathing critic and profound logician, brought to bear against it the strong artillery of his most powerful logic. Dr. Bennet Dowler, the alligator king, known to the world for his experiments and valuable contributions to science, brought all his influence and the subjects of his Saurian dominions against it. Prof. Riddell of the Louisiana University, in the chemical laboratory, like Saul in the camp of Israel, a head and shoulders above other men, was to lead up chemistry and micrography against it, after the logician and the alligator king had made their grand charge. They chose their own ground and made the issue themselves, contending, that the alligators, (thought to have been restored to life by hæmatokinety) were not dead, but only playing possum, as it is called, and that the child brought to life was in a swoon, *and all would have come to life of their own accord if let alone.* On this ground I met the issue. I procured an alligator of large size, fierce and vigorous from the battle ground below this city, and then summoned a jury of divines, professors and doctors together. The trachea of the animal was tied in their presence, and soon the animal seemed to die, *and was to die* if hæmatokin-

ety were true, but only *to play possum*, if that doctrine had no existence. I then gave the divines, professors and physicians full liberty to do what they pleased with the crocodile, and to use any and every means they could think of, to bring it to life, if they could. The renowned knight, Dr. Dowler, was especially addressed and la grande Dragonne playing possum, was particularly pointed out to him, and he was invited to bring it to life, and to take his own time for it. He tore, burnt, cut, pinched, pulled and pricked the skin, nerves and flesh of the animal, but to no purpose. He stood by it until he and all the rest of the physicians, professors and divines were fully convinced that it was dead sure enough. Now, as he had seen an alligator in exactly the same situation brought to life by hæmatokinety, he surrendered the ground he had assumed and confessed that on that issue he and all his followers were hors de combat. Although some copies of his paper, (setting forth in the title page that tying the trachea would not kill an alligator) had been printed and was going through the press, he stopped the press to have that heading struck off. So sure of victory were his supporters, that they proclaimed a victory in the last number of the New Orleans Medical and Surgical Journal) before a victory had been won. In the bulletin of victory hæmatokinety is represented as a ruin piteous to behold!—"a wreck!"—"*an idle vision of the brain!*" Soon after this announcement, Dr. Ely and his forces fell into captivity. Dr. Ely had a son who fell sick and died, a day or two after his grand demonstration against hæmatokinety appeared in print. It was a pretty little boy about six months old. There it lay without breath or pulse. Dowler and all the doctors, who saw it, pronounced it dead, and left the house. She of Troy, Mrs. Emma Willard, "*Filia Nata Jovis*" of the new world, who first made the discovery of the hæmatokinetic power, appeared unto Ely "*in a vision of the brain*," promising, if he would, like a true American, declare independence of the old tyrannical dogmas of non progressive Europe, in regard to vitality and the motive powers of the blood, and put in practical operation the beautiful, plain and simple go-ahead philosophy of progressive America, his child should be raised from the dead and restored to him alive and well! He choked, trembled, shook, as if agitated with some violent emotion, and then like Samuel Adams of the Revolution, raised his arm and abjured all allegiance to the dogmas, which chain the mind to the footstool of bigotry and folly in Royal ermine, and immediately set to work to awaken in his dead son the hæmatokinetic power, or that power which gives life and motion to the blood. Wonderful to tell, and no less true than wonderful, his child came to life! But he lost faith and desisted from the work too

soon. His child died again. Again "the vision of the brain reappeared and said, "*Persevere!*" He persevered, and again the child came to life. He relaxed his efforts and again it died. He now not only re-awakened the hæmatokinetic power and restored life a third time, but he persevered in the use of all those means calculated to keep it in activity, until Death was baffled of his prey and left the house. Dr. Ely's child is now alive and well. Although not an A. M. a M.D., or a L.L.D., young William Francis Ely has made a stronger argument in favor of the truth of the American discovery than the scathing and able argument which appeared against it in the last number of the New Orleans Medical and Surgical Journal over the signature of Albert W. Ely, M. D. "When Greek meets Greek then comes the tug of war"—Ely Junior against Ely Senior. What is singular, young Ely made his debut, holding in his tiny hands the flaming sword of Truth to cut America loose from the rotten-borough medical dogmatism of non progressive Europe, precisely 76 years after our worthy forefathers cut this country loose from the rotten-borough political dogmatism of that self-same region.

Prof. Riddell, commander of the reserved forces, has not yet come in from the battle field, being still in the woods. He had an immense amount of new and valuable materiel with him—the work of his own hands, or rather discoveries made by his wonderful microscope. These have all fallen into the hands of the hæmatokinetists, and are in process of being converted into unanswerable proofs of the new doctrine of life and the motive powers of the blood. They would be worth nothing to the able professor if he had them back again, as they cannot be explained on the old theory now so popular in the schools. If he could explain them, they would attract no attention from the school men, who look upon America as a Nazareth, out of which no good can come.

What is hæmatokinety? Let Dowler, let Ely, and particularly let Ely's child tell. What is hæmatokinety? It is a new discovery made in America, promising, if followed up, to effect great things—even "to make the old younger; men more vigorous; children healthier, and women prettier." What is hæmatokinety? It is that new doctrine, which lays hold of every truth and puts it in motion, bidding it do its best to carry Medicine forward and make it a progressive science. It has already unchained truths which medical dogmatism have kept in prison for centuries.

What is hæmatokinety? It is what the celebrated Marshal Hall of London is bending the knee to in his new theory of apoplexy, as pub-

lished in the last number of the London Lancet of this present month of July. Hall's new theory goes to show that all the old dogmas in regard to the cause and seat of Apoplexy are fallacious. We outside barbarians have had Hall's discoveries, (now going through the London press,) through the New Orleans press fully two years ago. But instead of adopting Hall's practice of cutting into the trachea to let in air to cure Apoplexy, we cut no throats, as the inside non progressives of London are now doing, but disembarrass the air passages of the phlegm, which excludes the ingress of air by the use of apophlegmatics. A simple, safe and expeditious method of cure. If Dr. Marshal Hall and his inside non progressives want to know how this is done, they will have to read an old number of the New Orleans Medical and Surgical Journal, where a lengthy and full account of the process will be found, and where Dr. Hall will find his theory with a better practice affixed to it than the throat-cutting one he has adopted.

144 *Canal street, New Orleans, July* 29*th,* 1852.

Part Second.

EXCERPTA.

I.—*Lectures on some of the more important points in Surgery.*

BY J. G. GUTHRIE, F. R. S.

When the wound of an extremity is of so serious a nature as to preclude all hope of saving it by scientific treatment, that limb should be amputated as soon as possible.

An amputation of the upper extremity may almost always be done from the shoulder-joint downwards, without much risk to life, and when necessary, the sooner it is done the better.

An amputation of any part of the lower extremity below the knee downwards, may be done forthwith, with nearly an equal chance of freedom from any immediate danger, as of the upper extremity, at or near the shoulder-joint.

It is otherwise with amputations above the middle of the thigh, and up to the hip-joint. They are always attended with considerable danger.

There can be no doubt, that if the knife of the surgeon could in all cases follow the ball of the enemy, or the wheel of a railway carriage, and make a clean good stump, instead of leaving a contused and ragged wound, it would be greatly to the advantage of the sufferer; but as this cannot be, and an approach to it even can rarely take place, the question naturally recurs, at what distance of time after the receipt of the injury or accident can the operation be performed most advantageously for the patient?

In order to answer the question distinctly, it should be considered with reference to two distinct states of injury:

1st. When injuries require amputation of the arm below the shoulder-joint, or of the leg below the knee, these operations may be done at any time from the moment of infliction until the expiration of twelve or twenty-four hours, without any detriment being sustained by the sufferer with regard to his recovery; although every one, under such circumstances, must be desirous to have the operation over. The surgeon having several equally serious cases of injury of the head or trunk brought to him at the same time as two requiring amputation, may defer them more safely perhaps than the assistance he is also called upon to give to the other cases, the postponement of which may be attended with greater danger.

2d. This state embraces those great injuries, in which the shoulder is carried away with some injury to the trunk, or the thigh is torn off at or above its middle, rendering an amputation of the upper third or at the hip-joint necessary;

and it is this, or nearly this state, which alone implies a doubt as to the propriety of immediate amputation, and demands further investigation. It is the state to which the attention of medical students is earnestly drawn for future observation.

It has been implied, if not actually maintained, that a man could have his thigh carried away by a cannon shot without being fully aware of it; or, if aware of it, that it did not cause much alarm; in fact, that it did not materially signify as to his apprehension, whether the ball took off his limb or the tail of his coat, or only grazed his breeches. An instauce of this kind has not fallen under my observation.

A surgeon on a field of battle can rarely have a patient brought to him, requiring amputation, under less time than from a quarter to half an hour; a surgeon in a ship may see his patient in less than five minutes after the receipt of the injury; and to the surgeons of the navy we must hereafter defer for their testimony as to the absence or presence of any constitutional alarm or shock; and if they occur, to what degree do they follow immediately after the receipt of such injury. The question must not be encumbered and mystified by a reference to all sorts of amputations after all sorts of injuries, but to the one especial injury, viz: that of the upper half of the thigh.

My experience, which may be erroneous, like every thing human, has taught me, that when a thigh is torn, or nearly torn off, by a cannon shot, there is always more or less loss of blood, suddenly discharged, and which soon ceases in death, or in a state approaching to syncope. When the great artery is torn, this fainting saves life, for an artery of the magnitude of the common femoral does not close its canal by retracting and contracting, as a smaller vessel does; it can only diminish it; and the formation of an external coagulum is necessary to preserve life, which the shock, alarm, and fainting, by taking off the force of the circulation, aid in forming; and without which the patient would bleed to death. An amputation in this state of extreme depression, might destroy life.

If the cannon shot, or other instrument capable of crushing the upper part of a thigh, should not divide the principal artery, and the sufferer should not bleed, it is possible he may be in the state alluded to, in which the patient, for he may not be called sufferer, is said to be just as composed as if he had only lost a portion of his breeches. Nevertheless, few have seen a man lose even a piece of his breeches by a cannon shot, without perceiving that he was indisputably frightened.

Whilst some persons, under the loss of a limb high up, are reduced to a state of syncope, or nearly approaching to it, which renders them almost, or even entirely speechless; others suffer extreme pain, and earnestly entreat assistance, under which circumstances amputation should be performed forthwith. In the former, the administration of stimulants may render the operation less immediately dangerous.

Chloroform, or other similar remedies, may produce an effect in such cases yet unknown. Its careful administration may not destroy the ebbing powers of life, and may render an amputation practicable, which could not otherwise be performed without the greatest danger. It may be otherwise; the point, however, is to be ascertained, although in all cases of great suffering its use should be unhesitatingly adopted.

When the sufferer is brought to the surgeon at the end of half an hour, having lost a limb below the thigh or shoulder, by a cannon shot, he will often be found in a state of such great depression as to be likely to be destroyed by the infliction of a serious and painful operation like amputation. This has occurred to me so often, as to induce me to recommend delay for five, six, or even eight hours, if the unfortunate person did not suffer much, and appeared likely to be revived by the use of stimulants.

This recommendation originated from the fact, that as one seriously wounded man has as much claim as another to the attention of the surgeon, all could not be attended to at the same time; and the success following the deferred cases of amputation was as great, if not greater, than in those on which the operation was more immediately performed.

The advantageous results of primary amputations, or those done within the first twenty-four, or at most forty-eight hours, over secondary amputations, or those done at the end of several days, or three or four weeks, has been so firmly and fully established, as to admit no longer of dispute.

When an amputation is deferred to the secondary period, a joint is often lost. A leg which might have been cut off below the knee in the first instance, is frequently obliged to be removed above the knee, when done in the second.

In the secondary period after great injuries, the areolar and muscular textures near the part injured are often unhealthy, the bones are in many instances inflamed internally, and their periosteal membranes deposit on the surrounding parts so much new ossific matter, as frequently to envelop in a few days the ligatures on the vessels, and render them immovable, necrosis of the extremity of the bone following as a necessary consequence, protracting the cure for months.

Sloughing of the stump, accompanied by inflammation of the vein or veins leading to the cava, frequently take place. This state of stump is often followed by purulent deposits in and upon the different viscera, and principally in the cavities of the chest. Where febrile diseases are endemic, they often prevail; the constitutional irritation is great; the stumps do not unite, or open out, is apparently united and slough, and frequently after a few days implicate the veins.

In the first edition of my work on Gun-shot Wounds, and on the great operations of amputation, in 1815, I said, alluding to the secondary operations—"In the most favorable state of the stump, the diseased parts do not extend very deep; yet it is frequently communicated along the vein, which is found to contain pus, even as for as the vena cava."

"When I have met with this appearance, I have always considered the vessels as participating in (not originating) the disease, which had existed some days, and thereby more quickly destroying the patient."

I further said, that after secondary amputations the febrile irritation, allayed by the operation, sometimes returns, and more or less rapidly cuts off the patient by an affection of some particular internal part or viscus, and especially the lungs.

"If it be the lungs, and they are most usually affected, the breathing becomes uneasy; there is little pain when the disease is compared with pneumonia or pleuritis; the cough is dry and not very troublesome; the pulse having been frequent, there is but little alteration; the attention of the surgeon is not sufficiently drawn by the symptoms to the state of the organ, and in a very short time all the symptoms are deteriorated; blisters are employed, perhaps bloodletting, but generally in vain; and the patient dies in a few hours, as in the last stage of inflammation of the lungs, in which effusion or suppuration has taken place."

"My attention was drawn to it after losing several cases in this way, as a circumstance of more than common accident, from its having happened in a young officer to whom I was paying considerable attention (at Salamanca). Since that I have had one well marked case at Santander, of a sudden and fatal affection of the lungs after amputation of the thigh, which was under the immediate care of Dr. Irwin."

The late Mr. Rose, of the Guards, communicated a case after amputation of the arm, to Sir James McGregor, who forwarded it to me, and my old friend,

the late Mr. Boutflower, who served frequently under me during the latter part of that war, and aided me in all my labors and views, forwarded to me two cases, from Fuenterabia, at the same time, which terminated fatally after amputation of the arm, from the deposition of a considerable quantity of pus in the cavity of the thorax.

" So insidious," he says, " was the approach of the disease, that except a difficulty of breathing which supervened a few hours before death, there were no symptoms indicating the existence of much morbid affection." No further notice was taken of this disease by any one in any of the hospitals on entering France in 1813, neither at St. Jean de Luz, nor Bayonne, nor Pau, St. Sever, Tarbes or Orthez, until after the battle of Toulouse, where the following cases occurred, which I published in 1815:

A soldier suffered amputation of the thigh five weeks after the injury at Toulouse, in consequence of a gun-shot fracture, when in a very reduced state, the discharge being profuse, the pain great, hectic fever severe. The third day after this operatien, from which he scarcely rallied, he complained of difficulty in swallowing, and pain in the situation ef the thyroid gland, which was found next morning to be inflamed. In spite of the means employed he died on the fourth day of the attack, or the seventh after the amputation, in a state of great emaciation. On dissection, the whole substance of the thyroid gland was destroyed, a deposit of good pus occupying its place, which descended by the sides of the trachea and œsophagus to the sternum, and had all but found its way into the larynx, between the cricoid and thyroid cartilages on the right side.

Daniel Lynch, wounded through the knee joint, at the battle of Toulouse, on the 12th of April, 1814, had his thigh amputated by the late Mr. Boutflower on the 8th of May. The night succeeding the operation he passed comfortably. Next day, the 9th, the febrile symptoms were augmented. On the 10th he was worse; pulse 150. On the 11th he was better. On the 16th he was considered to be in a state of convalescence, and went on improving until the 22d, when fever again recurred. On the 28th his stomach became very irritable; the stump appeared to be very nearly healed, the discharge being small, and of good quality; one ligature remained. 30th, pulse 110; tongue of a brownish hue. During tne 31st and the 1st of June he got worse and died. The stump appeared to have united externally, except where the ligatures came out; but on cutting through the line of adhesion, the muscular parts within were evidently unhealthy; the bone was surrounded for some distance by a case of osseous matter, including the remaining ligature, which could not be removed by any force not breaking it. The femur was bare, and showed marked signs of absorption having commenced, and three inches of it must have come away if the man had lived. The extremity of the vein was in a sloughing condition.

Having dissected the other extremity for particular purposes, foreign to the examination into the cause of death, a semi-transparent membraneous bag, containing good pus, was found accidentally on the tibialis posticus muscle. The blood in the perinæl vein outside of it was coagulated; there were little or no marks of inflammation, and the matter appeared to have been deposited without any. The inner side of the soleus muscle seemed simply to be discolored.

The first edition having been published before the battle of Waterloo, the opinions and facts stated therein became matters for public discussion, and the reports made by my friends from Baussels, Antwerp, Yarmouth, and Colchester, confirmed all the facts, and I may add, all the opinions of the slightest importance. They were published in the second edition in 1820, and were insisted upon in the third, published June 18, 1827.

Near forty years have passed away since I stated my opinion, that inflam-

mation of the veins is of two kinds—the adhesive or healthy, from which the sufferers usually recover, as in the cases of women laboring under the disease called phlegmasia dolens, and the irritative or unhealthy, occurring after operations; the disease being communicated by continuity to the vein, rather perhaps than originating in it. I then said I did not believe that pus is carried from the inside of the vein to the general circulation, the office of the vein ceasing as a carrier of blood on the inflammation taking place of its internal tissue, although I admit that the blood in a vitiated state, from the commencing disease in the stump, or in the system, may have for some time passed along it into the general circulation. The inflammation thus commencing may extend upwards and downwards, and across to the opposite side of the body. I never saw it actually in the heart, the sufferers dying by the time it had reached as high as the diaphragm, and in general not so far.

When a person, after undergoing amputation, is about to suffer from unhealthy inflammation of the veins, the pulse quickens, and continues above 90, usually rising from 100 to 130. The stomach becomes irritable; there are frequent attacks of vomiting, generally of a bilious character, accompanied by the usual spmptoms of fever. A few days after the commencement of the complaint, there is usually a well marked rigor, followed perhaps by others, but exacerbations and remissions of fever are marked. The skin gradually assumes a yellowish tinge, the perspiration is great, the bowels irregular, the pulse becomes weaker and more irritable, the emaciation is considerable, and the patient gradually sinks; or the febrile symptoms may subside, with the exception of the frequency of the pulse, he rallies a little, but whilst he says he is better, and the appetite even returns, the deterioration in appearance becomes more marked, more death-like, and an accession of fever rapidly closes the scene. The stump is often not more painful than under ordinary circumstances, neither is there any remarkable pain or tenderness in the course of the vessels.

The practical points are, to draw blood to a sufficient extent, but with caution, on the accession of fever; to open out the stump as soon as possible, even by a division of the external adhesions, the inner parts being usually unsound; to envelop it in a large warm poultice; to apply cold above—even ice if procurable—in the course of the great vessels, and to soothe the system by calomel, opium, and saline diaphoretic remedies, followed by stimulants, cordials, quinine and acids.

Private A. Clarke, 79th Regiment, had his thigh broken by a musket-ball a little above the knee-joint, at Waterloo, and was admitted into the clinical ward of the York Hospital, in London, in November, 1816. The bone being in a state of necrosis, Mr. Guthrie amputated the thigh high up, on the 20th of January. Pulse before and after the operation 104. On the 25th, pulse 120; skin cool; tongue moist; appeared weak and irritable. During the 26th and 27th, symptoms of low fever came on. 28th, suffered severely from vomiting, general fever, greater prostration of strength; stump not united, but discharged good pus. 30th, skin assumed a yellow tinge.

On the 1st of February had a rigor, resembling a fit of ague, and Mr. Guthrie declared his suspicion of the formation of matter, probably in the liver, and of the inflammation of the veins of the stump. The symptoms gradually assumed the character of typhus gravior, and on the 8th he died. On dissection the liver was found enlarged, and weighing six pounds; the other viscera were sound. On examining the stump, an abscess, containing four ounces of good pus, was found in the under part, near the bone. The femoral vein, and those going to that part of the stump, were inflamed, and contained coagulated blood, lymph, and purulent matter, the disease extending from the femoral to the vena cava. The rigors on the 1st of February marked the formation of

matter, the typhoid symptoms its continuance, and the inflammation of the veins. Union was discouraged from the first dressing.

The following case is so highly instructive on all points, that it is transcribed from the London Medical and Physical Journal for 1826 :

Jane Strangemore, aged 28, was admitted into the Westminster Hospital, September 24th, 1823, with an elastic swelling of the whole of the knee-joint, measuring twenty-seven inches and a half in circumference. The thigh was amputated by Mr. Guthrie on Saturday, the 27th, the bone being sawn through just below the trochanter. She suffered a good deal of pain after the operation. An opiate was administered to her, and repeated, and she passed a good night.

28th. The pulse, which previous to the operation was 80, had increased to 100; there is, however, little heat of the skin, and she appears easy. Some aperient medicine and saline draughts to be given every four hours. Towards evening she vomited a quantity of bilious matter ; pulse 120. Three grains of calomel and one of opium, followed by the common aperient mixture, were ordered, and an enema. The region of the stomach, to which part pain was referred, was to have applied to it equal parts of ether and laudanum.

October 1st. Better in all symptoms, but looking irritable and ill; complained of no pain anywhere ; no sickness ; appetite good ; the pulse was still quick.

8th. Two ligatures have come away ; the wound looks well ; the edges have nearly healed; eats meat with a good appetite.

9th. Not so well; pulse 120; skin hot; feels ill; complains of pain in the other leg and thigh, which disturbed her rest. Was well purged and the leg fomented ; the pain was for the most part felt in the calf of the leg and in the heel.

10th. Pulse 130 ; tongue furred ; vomiting again of bile ; the pain in the thigh, extending upwards to the groin, and downwards to the heel is intolerable, particularly in the latter part ; the thigh and leg much swelled, and tender to the touch, although without redness ; the swelling elastic, yet yielding to the pressure of the finger, but not in any manner like an œdematous limb. Mr. Guthrie pronounced the disease this morning to be inflammation of the veins, extending from the opposite side ; but after a careful examination, and on pressure, no pain was felt in the course of the iliac vessels of that side, and the stump looked well, save at one small point, corresponding to the termination of the femoral vein.

17th. The symptoms continued nearly the same during the week, the sickness of the stomach and purging of bilious matter abating at certain intervals.

18th. Is better, and the pain diminished. She looks somewhat better, but is becoming thinner.

20th. Less pain in the limb, which is swelled, tender to the touch, and all the superficial veins are very much enlarged. The groin more swelled and tender ; sickness gone, and her appetite returning ; she is allowed good nourishing simple diet. The stump has been poulticed since the 9th to promote suppuration.

25th. During these five days it was interesting to see the patient eat, and desire solid food, and in her extremely emaciated state, seem to enjoy it. The bowels occasionally deranged. Pulse always from 126 to 136. Is slightly jaundiced in color, but declares she is better, and will get well.

27th. Gradually sank in the evening, and died; the leg having everywhere diminished in size, except at the groin, where the swelling was more circumscribed, resembling the appearance of a chronic abscess approaching the surface.

On examination after death, the termination of the vein on the face of the stump was open, and in a sloughy state: above that, for the distance of four inches, and as high as Poupart's ligament, the inside of the vein bore marks of having been inflamed, but the inflammation seemed to have been of an adhesive or erysipelatous character, had gone on to suppuration, and the vein was filled with purulent matter, lymph, and blood, partly coagulated, partly broken down. These appearances extended up the cava as high as the diaphragm, and traces of inflammation could be distinctly observed almost in the auricle. This disease had passed along the right external iliac and its branches; it had descended along the left iliac vein, and its branches in the pelvis to the uterus, and along the limb to the sole of the foot. At the left groin, the iliac vein becoming femoral, was greatly distended with pus, apparently of good quality; and if the patient had lived a day or two longer, it would have been discharged by a natural effort, as in chronic abscess; the viscera were healthy.

During the last days of this woman's life, no blood was returned from the lower half of the body, unless by the superficial veins; yet she was comparatively easy, although of a yellow hue, emaciated to the utmost, so as to represent a living skeleton; and in this state, with a pulse at 130, craving for, and eating a whole mutton-chop, and more, at a time, with the most death-like countenance it is possible to conceive.

These two cases mark the course, the symptoms, and the termination of inflammation of the veins after amputation, in as clear (if not more clear) and distinct a manner as any which have been since published, and which they preceded; nevertheless, most authors of modern date overlook the first, and some appear to avoid as much as possible the second.

After the battle of Waterloo, the wounded of the same regiment were sent indiscrimately, some to Brussels, some to Antwerp. Those who remained at Brussels suffered principally from inflammatory fever after amputation; those at Antwerp from the endemic fever prevailing at the time, beginning as an intermittent, and ending often in typhus.

The following are instances of endemic fever after secondary amputation, ending in sub-acute inflammation of the lungs and effusion into the chest:

Charles Brown, 92d Regiment, 40 years of age, at that time a healthy man, was wounded on the 18th June by two musket-balls in the right hand and wrist; and was admitted into the hospital at Antwerp on the 25th June. On the 5th of July the arm was swollen above the elbow; discharge profuse and fœtid; countenance sallow and dejected; fever.

8th. Arm amputated above the elbow.

9th, 10th, 11th. A little increase of fever.

12th. A paroxysm of intermittent, to which he had been subject occasionally since he had been at Waterloo. On removing the dressing, the edges of the stump were retorted; discharge copious and fœtid; respiration hurried; thirst; skin hot; pulse 90; skin yellowish.

14th. Intermittent returned; head affected in consequence of long continuation in the hot bath.

15th. Complains to-day of fulness and pain in the left side; pulse 100; skin of a deeper tinge of yellow: a sense of suffocation when in the horizontal position. A blister was applied to the whole of the side of the chest.

16th. Became delirious during the night; vomited frequently; became insensible at the hour when the paroxysm of intermittent fever was expected to return, and died in the evening.

On opening the chest, the lungs were found adhering to the pleura costalis in several places, and were hepatized; a quantity of serum and lymph was contained in the left pleura, so as to compress the lung, in which there was a small abscess. The liver was twice the natural size.

J. Lomax, of the Guards, was wounded at Waterloo, suffered amputation of

the right arm on the 23d August, and arrived at the General Hospital, Colchester, on the 27th August, in a state of high fever, and unable to give any distinct account of himself. He had had the ague, he said, for many days, which left him for a short time, but returned again when on ship board; that on the 25th he was attacked by pain in the side, which was very severe on the 26th, on which day a blister was applied, which greatly relieved him. The stump had an unhealthy appearance, the edges of the wound evincing a disposition to separate.

On the 28th he was free from pain; fever unabated, with a tendency to delirium. He sunk rapidly on the 30th, and died on the 31st, notwithstanding the use of the most powerful stimuli.

A quantity of serum was found on dissection on the left side of the chest, the pleura pulmonalis on both sides was covered with a thick layer of coagulable lymph. The pericardium was distended with fluid. The liver was enormously distended, pushing up the diaphragm, and displacing the lung, having in its substance a large abscess, containing at least a quart of pus. The stump did not exhibit any peculiar appearance.

O. Sweeney, 90th Regiment, aged 19, was wounded in the hand on the 18th of June, 1815, and taken to Brussels. On the 5th of July he left for England, and arrived at Colchester on the 14th. The wound shortly assumed an unhealthy appearance; hæmorrhage took place, and the arm was amputated on the 30th. The day after he had severe rigors for fifteen minutes, followed by fever. The next day he was better, and appeared to be doing well until the 6th of August, when fever again recurred. Stump quite healthy in appearance. On the 7th he was attacked by purging and vomiting, which lasted for several hours, and reduced him much, returning at intervals until the evening of the 8th. Small quantities of wine and opium agreed best, and a blister was applied to the scrobiculus cordis. On the 9th, he complained of pain and tenderness in the abdomen, which were relieved by fomentations and an enema. The stump looked well, and discharged healthy pus in small quantity; and the ligature on the brachial artery came away.

On the 20th his strength failed, and the tongue and teeth were covered by a dark sordes. The adhesions of the stump appeared disposed to separate. At night he was restless, with low delirium; and on the 11th died, with the complete facies Hippocratica.

On raising the sternum, the pleura of the left lung was found adhering to that of the ribs, and covered by a thick layer of coagulable lymph. The lung was highly inflamed, and on cutting into its substance, a number of small tubercles were observed. The pericardium and left cavity of the thorax contained more than the usual quantity of fluid. During the progress of this case, eleven days from the amputation, no one symptom existed which could induce a suspicion of inflammation going on in the thorax. The stump was in a sloughing condition, but the disease did not extend along the brachial vein.

Thomas Haynes, 23d Light Dragoons, aged 19, was wounded by a spear on the back of the left forearm, at Waterloo, which appeared to do well until he left Brussels for England, when it assumed an unfavorable appearance, and on his arrival at Colchester, on the 14th of July, it was in a sloughing state. The pain was excessive, and the tenderness around the whole circumference of the sore was so great, that he could not suffer the slightest possible pressure with the finger. He was largely bled, and a solution of sulphuric acid, one drachm to twelve ounces of water, was applied twice a day to the whole surface, and the whole kept wet with cold water, which treatment was continued until the 21st, during which period he was bled five times, to about twenty ounces each time. The acid solution was increased from one drachm to an ounce, and care was taken that the sloughing portions only were touched with it. His health

was considerably amended, and on the whole a favorable result was expected. At two, on the 22d, a sudden hæmorrhage took place, to the amount of three pints; a second ensuing on the 23d, the arm was amputated. The pulse continued quick; in other respects he was well, until the 25th, when some accession of fever took place, and increased. He was bled to ten ounces and purged. On the 26th, the line of incision in the stump appeared to be healed, and with the exception of the pulse at 140, he had no unpleasant symptoms on the 27th, and was free from pain of every kind. On removing the centre strap, which had been allowed to remain, a large collection of matter of good quality issued. On the 28th he was much the same. On the 29th, the countenance had assumed a death-like paleness; pulse 120, but intermitted every fifth pulsation; breathing short and laborious, but with some pain in the chest, and every symptom of effusion having taken place. He died at 2 P. M., six days after the amputation.

The only morbid appearance found on dissection was a large quantity of serous fluid in the pericardium, which was distended by it, and on both sides of the chest. The heart and lungs, with their membranes were quite sound. On examining the stump, the sanative process was found to have been entirely confined to the integuments. No appearance of granulation could be perceived on the muscular surface.

This last case is worthy of especial observation, on account of the manner in which sulphuric acid was used in a sloughing state, from one drachm to one ounce of the acid to twelve ounces of water, not as something new, but as an ordinary application; and I am doubtful whether there is any case on record of such use, anterior to it. Is the use of strong acids in sloughing cases also due to the war in the Peninsula? Delpech says yes—a testimony I shall confirm in its proper place.

I have departed, in some degree, in the foregoing observations, from the aphorismal form I had prescribed for myself in the commencement of these Commentaries. I have done so as an act of justice to those officers who served at Toulouse, Brussels, Antwerp, and Colchester, in 1814 and 1815, who are all now no more, and who labored hard in the then early investigation of these different states of disease, and have not received the reward they merited of public acknowledgment. I have endeavored, as the Chancellor of the Exchequer says of Lord George Bentinck, to preserve for them the chastity of their honor.

Mr. Hunter, in 1793, had described the appearances and the fatal consequences of inflammation of the veins, as a consequence of injuries inflicted on the surrounding parts, but I apprehend I was the first person to point out the prevalence of this complaint after secondary amputation, and its intimate connection with certain low inflammatory attacks, attended by destructive purulent depositions, particularly in the chest, and their more chronic deposit in other parts. Mr. Rose, of the Guards, published some observations in the fourteenth volume of the Medical and Chirurgical Transactions, in 1828, confirming the remarks made by me in print thirteen years before, but without referring to them. Mr. Arnott has an able paper on the subject in the fifteenth volume. M. Sedillot thinks he has detected globules of pus in different parts of the circulating system, in persons who died of this disease. Dr. Henry Lee, 1850, one of the last English writers on the subject, professedly doubts the accuracy of the observation; and this point remains amongst others for further investigation. He admits, however, that in cases where, from long continued disease, there have been repeated introductions of vitiated fluids into the circulation, the blood loses much of its coaguluting power, which prevents the admission by the veins of purulent matter, by forming with it in them coagula, constituting, he thinks, the essential disease. When the coagulating power of the blood

is thus lost, he thinks it possible that pus globules may then be found circulating in the blood.

Other late writers, and lastly Dr. Hughes Bennett, think these diseases are dependent on the introduction of a peculiar animal poison. Attention should be paid by the medical officers of the public service, wherever there is war, to the state of the blood, and to the inner lining of the diseased veins under the microscope; and all those gentlemen, when in London, should study its use under Mr. Queckett, at the College of Surgeons, to whose lectures they have the right of admission, and to whose kindness they will all soon feel greatly indebted.

I am not aware that the writers referred to have added any thing to the practical facts I had related so long before, which is much to be regretted. It is of little use, although it is a step in the right direction, to describe a disease, or even to show why and wherefore it destroys, unless a means of prevention or of cure can also be indicated.

In the irritable and sloughing state of stump alluded to, hæmorrhages frequently take place from the small branches, or from the main trunks of the arteries, in consequence of ulceration; and it is not always easy to discover the bleeding vessel, or when discovered, to secure it on the face of the stump; for as the ulcerative process has not ceased, and the end of the artery which is to be secured is not sound, no healthy action can take place, the ligature very soon cuts its way through, and the hæmorrhage returns as violently as before, or some other branch gives way; and under this succession of ligatures and hæmorrhages the patient dies.

Some surgeons have in such cases preferred cutting down the principal artery of the limb, in preference to performing another amputation, even when it is practicable; and they have sometimes succeeded in restraining the hæmorrhage for a sufficient length of time to allow the stump to resume a more healthy action. This operation, although successful in some cases, will generally fail, and particularly if absolute rest cannot be obtained, when amputation will become necessary. The same objection of want of success may be made to amputation; and on a due comparison of the whole of the attending circumstances, the operation of tying the artery in most cases is to be preferred in the first instance, and if that prove unsuccessful, then recourse is to be had to amputation; but this practice is by no means to be followed indiscriminately. The artery ought to be secured with reference to the mode of operating, as in aneurism, but the doctrines of this disease are not to be applied to it, because it is still a wounded vessel with an external opening.

To obviate all difficulties, the part from which the bleeding comes should be well studied, and the shortest distance from the stump carefully noted, at which compression on the artery commands the bleeding; and at this spot the ligature should be applied, provided it is not within the sphere of the inflammation of the stump. In case the hæmorrhage should only be restrained by pressure above the origin of the profunda, and repeated attempts to secure the vessel on the surface of the stump have failed, amputation is preferable, whenever the strength of the patient will at all bear it, to tying the artery in the groin.

When hæmorrhage takes place after amputation at the shoulder-joint, it is a most dangerous occurrence. An incision shonld then be made through the integuments and across the great pectoral muscle, when the artery may be readily exposed, and a ligature placed upon it without difficulty anywhere below the clavicle.

If the state of the stump in any of these cases depend upon the bad air of the hospital, the patient had better be exposed to the inclemency of the weather rather than be allowed to remain in it.

In crowded hospitals, hæmorrhages from the face of an irritable stump are

not unfrequent, and often cause a great deal of trouble and distress. It is not a direct bleeding from a vessel of sufficient size to be discovered and secured, but an oozing from some part of the exposed granulations, which are soft, pale and flaccid. On making pressure on them, the hæmorrhage ceases, but shortly after re-appears, and even becomes dangerous. This hœmorrhage is usually preceded by pain, heat and throbbing, in the surface from which it precedes. There is irritation of the habit generally, and a tendency to direct debility. The proper treatment consists in the removal of the patient to the open air, with an antiphlogistic regimen in the first instance, followed by the use of quinine and acids; cold to the stump, in the shape of pounded ice or iced water, with occasional styptics to suppress the immediate bleeding. Escharotic and stimulating applications should be used with caution.

(*London Lancet, July*, 1852.)

II.—*On the detection and preservation of Crystalline Deposits of Uric Acid, Urate of Ammonia, Phosphate of Lime, Triple Phosphate, Oxalate of Lime, and other Salts.*

BY ARTHUR HASSALL, M. D.

Several medical friends have written to me from time to time for instructions in the method by which the above and some other crystalline deposits may be permanently preserved for study and for comparison, as microscopic preparations.

As it is of the utmost importance that every facility should be afforded for the study of the various derangements to which the renal secretion is liable, as it is by the united labors of many inquirers that we can hope ever to arrive at a complete knowledge of the many pathological conditions of that fluid; and as, further, many men are deterred from following out investigations of this nature in consequence of supposed difficulties, many of which are rather imaginary than real, I propose, in the present communication, to put together a few brief and simple observations and directions, showing the characters by which the principal deposits may be distinguished, and when discriminated, how they may be permanently preserved.

The materials required for the preservation of the depoits which occur in the renal fluid, when in a morbid condition, are test tubes, distilled water, a camel's hair brush, glass slides, cells, covers for the cells and cements.

The slides, for the sake of uniformity, and for convenience of disposal in the drawers of the cabinet, are now all made of one size, namely, three inches long by one broad; in general the slides are quite plain, but sometimes they are hollowed out in the centre into little pitts or cells.

The cells when separate, should be made out of thin glass, and should be furnished with a large aperture; they are to be affixed exactly in the centre of the slide by means of the cement, to be described hereafter.

The covers are to be of still thinner glass, of a circular form, and are to be accurately fitted by means of cement over the aperture in the cells.

Three different cements are required to secure the cells and covers; one should consist of marine glue; the second of asphalte, dissolved in turpentine; and the third of a mixture in equal parts of the second cement and gold size. The marine glue is to be heated over the flame of a candle, and used to fasten the cells to the sides; with the asphalte the margins of the cells are to be coated over, and on to this, when nearly dry, the glass cover is to be dropped.

The object of applying this coating is, that by means of it the cover may be so secured as to prevent the third cement, which is used to secure the edges of the cover from running into the cell, and so spoiling the preparation. The slides, cells ane covers may all be procured from the principal manufacturers of mycroscopes.

Next to urate of ammonia, deposits of uric acid are the most frequent of all; they may be recognized by the eye alone, by their fawn color, more or less deep, and sandy or crystalline texture. Sometimes, however, the sediment is so pale, although not absolutely colorless, and the crystals so minute, that a microscope is necessary to determine their nature; by the aid of this instrument they may at once be recognized. The primary form of the uric acid crystal is a rhomb, which is met with in every modification of size and shape, and in one of two states—either the crystals are single and separate, or else compound and aggregated, glomeruli or spherules being formed by the crossing at angles and union of several crystals. It happens occasionally, when the crystals are very small, that some of them, in place of falling to the bottom of the vessel, form a delicate scum or pellicle, on the surface of the liquid, which is very apt to be overlooked altogether, and the nature of which the microscope only can make known to us.

Deposits of uric acid may be permanently preserved in the following manner —the supernatant fluid is to be poured off, and the sediment transferred to a test-tube; this is to be filled with distilled water, which, as soon as the deposit has entirely subsided, is also to be carefully poured away, or removed by means of a pipette; the tube is then to be filled a second, and even a third time, with distilled water.

The object of washing the crystals is to get rid of the mucus and soluble salts, which, as the liquid evaporated, would collect round, and render the crystals indistinct.

But sometimes the crystals of uric acid are concealed in a dense, cloud-like sediment of urate of ammonia, and this must be got rid of before the uric acid can be obtained separately. The separation may be thus effected—the supernatant liquid, except so much of it as contains the urate, is to be poured off; the remainder is to be transferred to a large test-tube; this being gently heated over a spirit-lamp, the urate is re-dissolved, and the uric acid left free and unaffected; the acid is then to be washed in distilled water, in the manner above described.

The deposit being now well washed, and freed from adherent mucus and the soluble salts of the renal secretion, is to be removed from the test-tube, and placed in one of the cells previously affixed to the slide. A soft camel's hair brush will be found to facilitate the transference and to assist in distributing the crystals evenly over the interior of the cell.

The cell is next to be set aside until the crystals have been perfectly dry—lastly, the cover is to be put on and secured as directed, with the appropriate cements.

Now precisely the same steps must be taken in order to preserve all the other deposits enumerated; they must all be collected in the same manner, and well washed in distilled water.

Urate of ammonia is the commonest of all the deposits; it occurs generally as an amorphous powder, very soluble in hot, and but sparingly so in cold water; occasionally, but rarely, it is met with in the form of little shot-like spherules, and when in this state only is it possible to preserve this salt in a satisfactory manner. The deposit should be but once washed in very cold distilled water. Sometimes the spherules collect on the surface, or adhere as a brown crust to the side of the bottle containing the secretion.

Uric acid and the urates of ammonia and soda are the only colored deposits

which occur in the renal secretion, with the exception of that very rare deposit, cystine; the rest are all colorless, and herein we have a simple character by which uric acid and its combinations may be distinguished from the other deposits.

The neutral phosphate of ammonia, and magnesia, or triple phosphate, as it is sometimes termed, is also very frequently present as a deposit; the crystals have the form of a three-sided prism, and are often so large that they are visible to the naked nye. In a white glass bottle, held up in the rays of the sun, the crystals of this salt, as they descend in the fluid, are to be seen shining like myriads of minute diamonds.

Very commonly, some of the crystals, instead of falling as a sediment, float on the surface of the liquid, forming a pellicle; sometimes the crystals are free, but more usually they are imbedded and entangled in a gelatinous looking layer of phosphate of lime.

The modifications in the form and size of the crystals of triple phosphate are very great, but the whole of the varieties are reducible to the one primary form.

The bibastic triple phosphate is a rare variety of renal deposit, and is met with in the fluid of the kidney, principally when this has been kept for some time. It presents itself in the form of beautiful feathery stellæ, which are extremely difficult to preserve in a satisfactory manner, as in drying they are apt to fall to pieces, and so become disintegrated.

Another rare form is the phosphate of lime deposit. The crystals occur sometimes singly, at others in tufts or stellæ. Although they usually fall as a sediment, yet they may often be detected floating on the surface of the liquid, either free or intermixed with crystals of triple phosphate, or entangled in a pellicle formed of vibriones.

Oxalate of lime is of rather frequent occurrence as a deposit. It may occur alone, but more commonly it is mixed up with either triple phosphate, uric acid or urate of ammonia. Some writers state that the crystals frequently do not form a sediment, but remain suspended in the liquid, and direct that a portion of the renal fluid should be gently warmed in a watch-glass, to allow of their subsidence. This is unnecessary, as, if sufficient time be given, the crystals always fall and collect at the bottom of the vessel containing the secretion. If, as is frequently the case, there be much epithelium or mucus, the crystals will become entangled, and concealed indeed in these to some extent. The dumb-bell form of oxalate of lime is not so uncommon as is generally supposed. As in the case of the other compounds and salts, the crystals sometimes collect on the surface of the liquid. I have met with crystals of oxalate of lime, both octohedra and dumb-bells, so small that their form could scarcely be distinguished even with an object-glass magnifying 420 diameters.

The last of the deposits met with in the renal fluid is cystine. This is exceedingly rare; it forms a copious pale-colored precipitate, resembling, to the eye, that of urate of ammonia, but immediately distinguishable under the microscope by its crystalline texture, the crystals forming flat, six-sided lamellæ, which are often compound.

Many of the soluble compounds and salts likewise admit of being preserved, in a manner more or less satisfactory, as urea, nitrate and oxalate of urea, the chlorides, sulphates and phosphates. Into the method of preserving these I propose to enter in a second communication.

I have at the present time in my cabinet several hundred preparations of the above deposits, put up in the manner just described, and many of which have thus been preserved for years. Of the more interesting and curious varieties, I have had figures executed, and am now engaged in the preparation of these for publication. (*Ib.*)

III.—*On the separation from the Blood of an excess of water by the Kidneys.*

BY DR. OWEN REES.

Let us first discover the uses of water in the blood, the ends answered by its presence, the necessity for its frequent removal, and for the supply of fresh water to the system.

The first and most obvious use of water in the blood is to maintain its fluidity, and thus to enable various salts and other matters to be presented to the organs in such a form as to enable their particles to receive the impress of chemical, and probably electrical actions, in a minuter state of division than can be compassed by other means.

As regards the action of water in the blood, in its relation to the kidneys and the skin, we must especially regard the following points:

1st. The density of the blood is, in health, nearly always the same; and a large excretion of water calls for immediate supply of a like quantity to the blood; and this happens whether the excess of water has escaped by perspiration or in the urine.

2d. The changes which take place in the blood, more especially those of oxidation, and the formation of the alkaline phosphates and sulphates by the union of oxygen with the phosphorus and sulphur contained in the albuminous matters taken as ingesta, require water in order to wash away the salts formed as the result of this action.

Now there is a constant necessity for a supply of water to keep up the specific gravity of the blood, and to wash away the oxidated products as they are formed, whenever, from disordered action, the kidneys allow the water of the blood to pass away into the urine in large quantity. The sensation of thirst occurs in all such forms of disease, and its satisfaction is necessary in order to preserve the integrity of the blood. It is true that the skin, in excessive diuresis, is dry, and that cutaneous transpiration is either lessened or altogether ceases; but the water which is retained in the blood by this action, is by no means sufficient to compensate for the abstraction of water which goes on in nearly all cases of diabetes, whether saccharine or insipid. The guide for the necessity of supply is the sensation of thirst, and it should always be gratified; for on whatever conditions the diabetes may depend, (and, unfortunately, we are as yet greatly in the dark with respect to the pathology of this most interesting disease) it will be in vain to hope to treat it, if we do not keep the blood up to its normal standard, by supplying water to it at any moment it may be required. Let us think how the blood must suffer in those cases of diabetes, far from uncommonly met with, in which the urine amounts to eight and twelve pints in the twenty-four hours. Let us reflect on what the person who is the subject of disease must lose in water during the twenty-four hours. We may allow two and a half pints for urine, and two and a half pints for cutaneoes transpiration, and we shall see then that the diabetic loses more than three pints per diem extra, assuming that his skin is absolutely inactive, which is rarely the case. Now six tumblers of water, or thereabout, taken during the twenty-four hours, is a very large quantity, but I do not scruple to say, is seldom more than necessary to keep the blood in a proper state in diabetes, where eight pints of urine pass per diem.

There is a fear often expressed by practitioners, that allowing the patient to drink, irritates the kidneys, and so keeps up the flow of the water—in fact, that the more the patient drinks the more urine passes. This is true, if fluids be taken beyond certain limits, but it does not act materially when fluid is taken so as to satisfy thirst; and I have always seen greater improvement take place where this boon was granted to the patient; and every thing we know of the

blood, and the necessity of maintaining it at a certain fixed specific gravity, points to the propriety of allowing it.

Having alluded to diabetes in this manner, it might be supposed that I regard that disease as an effusion of water by the secreting surface of the kidney. Should such a condition obtain, however, it can only be a diseased state induced secondarily upon other evils more nearly connected with disturbance of the chylopoietic organs, and probably the brain. It is not my intention, however, to enter upon this subject, but merely to suggest that analogy would seem to point to the probability of an occasional increased flow of water from the kidney, as the result of some secondarily induced disease of its secreting surface.

(*Med. Gaz. July*, 1851.)

IV.—*On the Gastric Juice.*

BY DR. BENCE JONES.

[The conclusion which Dr. Bence Jones arrives at, as to the action and use of the gastric juice, is, that its proper action is for the solution of albuminous substances. He says:]

That this action is prompted, first, by temperature; for it is found that at an ordinary temperature, say from 54 ° to 60 °, the temperature of this room, no solution takes place. I have the contents of a stomach, which have been here for many hours, and probably there is not now a particle more in solution than when the contents were first removed; the temperature of the room has been sufficiently low to check all further action, and it must be raised to 96 ° for a further solution to take place.

The next great agent is motion. During the time of digestion, a certain motion is, without doubt, constantly taking place in the stomach; but digestion may take place without any such contraction, or gentle rubbing, as one may suppose the stomach to be undergoing; this is proved by the fact that food will digest when placed in perforated balls, which allow the mixture of the food with the gastric juice.

Thirdly, salts are of importance in the process of digestion. Common salt, without doubt, promotes the secretion of acid by its irritation and by its chemical action on the mucous membrane of the stomach. If very much common salt, however, is taken, the process of digestion appears to be retarded. So also with other salts. It is probable that even calomel has this property of stimulating the mucous membrane of the stomach, and thus, at times, of aiding the digestive process. Another great agent in promoting the action of the gastric juice, is the removal of substances as soon as they are dissolved. As soon as substances are dissolved they are enabled to escape, some of them by being absorbed into the veins, and some of them by passing out through the pylorus. That some of these soluble matters are constantly being removed from the stomach by the veins, is proved by tying the pylorus, and finding that in the case, for instance, of a stomach filled with milk, the watery part of the milk will be taken up from the parietes of the stomach by the veins, whereby the casein is left, and is much more slowly dissolved; it is certain that the solution is always going on, that a part of the contents of the stomach is always being dissolved, while the process of digestion is proceeding.

Lastly, it has been shown by the experiments of German physiologists, that atmospheric air is not at all necessary to aid digestion. If the contents of a

stomach be placed in an air-tight vessel, and exposed to a proper temperature, digestion will take place.

We come then to the conclusion, that the ferment in the saliva is the substance which acts chiefly upon the most important non-nitrogenous constituent of our food, namely, starch; and that the ferment in the gastric juice acts chiefly upon the albuminous or nitrogenous constituents. Agents that stop fermentation stop digestion; for example, strong acids, alkalies, heat, alcohol. The stomach ferment differs from the saliva ferment, in losing its action when heated, or when treated with strong acid or alcohol; also by its necessary union with an acid. The acid determines the mode of action and regulates it. If carbonate of potash or soda is added in excess, a totally different action of the ferment ensues, decomposition begins. Slightly altered ferment, like slightly altered yeast, may set up lactic or butyric acid fermentations, and there is reason to suppose that acetic acid fermentation may also occur. You will remember that the substances existing in the food I divided thus: Water, which can be taken up of itself; mineral matters, which are soluble in water or in dilute acid; non-nitrogenous organic substances, some soluble, as sugar, and others, as starch, insoluble in water, but acted upon immediately by the saliva; others, as cellulose, insoluble even by the saliva or gastric juice, and which cannot, therefore, serve for the nutrition of the body; and lastly, nitrogenous substances. The fluid which acts upon this last class of substances is the gastric juice; it is the proper agent for rendering them soluble. It converts the albumen, fibrin, and casein into albumen peptone, fibrin peptone, and casein peptone, which are soluble in water, and are, therefore, easily taken up into the body to serve the purposes of life.

(*Med. Times, June*, 1851.)

V.—*Extirpation of a Schirrhous Parotid Gland.*

BY M. MONOD.

A swelling, increasing in size, and accompanied by lancinating pains, had manifested itself during a twelvemonth, in the parotid region, in the person of a clergyman, aged 50, of robust habit, and in good health. A hard, insensible tumor, having the skin in a very vascular condition, adhering to it, was considered, in consultation, to be schirrhous in its nature, and to call for extirpation. The operation proved one of considerable difficulty, owing to the strength of the deep-seated adhesions, which had to be separated by the fingers. M. Monod approves of the rule that has been laid down in these cases, of detaching the tumor from its adhesions, anteriorly and posteriorly, and then attacking its deep-seated portion from below upwards, always directing the knife towards the tumor. The preliminary ligatare of the carotid is thus rendered quite needless, and if any considerable artery is opened, the bleeding may always be arrested by pressure on the carotid, and the operation finished before the vessel is tied.

In the present case, a good deal of bleeding took place from the surfaces of the incisions, both during and after the operation, but only one vessel had to be tied. Owing to the great depth and irregular form of the wound, it was considered proper not to attempt union by the first intention. By the fortieth day it had become quite superficial, so that the patient could return to the country. He continued to suffer considerable pain in mastication, however, for about a month afterwards.

The tumor removed was about the size of an egg, hard and lobulated, and

exhibited, on incision, the primary stage of schirrhous—the gland in several parts being unaltered. M. Monod observes that the question may here be asked, as in other similar cases, whether the parotid itself has been actually extirpated? In reply to those who maintain the impossibility of performing the operation without doing injury to the carotid, which lies imbedded in the gland, he refers to the observations of MM. Nelaton and Denonvilliers, which prove, that as a general rule, the artery lies merely in contact with the gland, but not enveloped by it—the gland, in most cases, presenting on its deep surface a furrow in which the artery is lodged, this furrow being converted into a sheath by loose cellular tissue connecting its edges. It is possible, too, for the changed form of the gland to efface the furrow, and thus completely to separate the artery from it. These considerations, then, lead to the belief, that in the majority of cases the parotid may, with suitable precautions, be extirpated without any injury being done to the carotid. But in the present case, there was also ample proof that the tumor removed really was the parotid itself, and not an enlarged gland which had pushed it backwards. Those who were present, and saw and felt the vast chasm exposed, leaving only a thin layer of tissue in front of the spinal column, and exhibiting all the muscular structures, as if for a demonstration, could entertain no doubt about the matter. A small portion of the gland around the meatus auditorious, was in fact all that was left of it. The adhesions, too, were so strong, as to require a very different amount of force for their detachment, from that necessary for the enucleation of a diseased gland. A no less strong proof was derived from the effects of the division of the facial nerve, which passes through the parotid. Prior to the operation the patient suffered from paralysis of the lower portion of the cheek; but immediately after it every part supplied by the facial became paralyzed. The branches of the nerves were found embedded in the substance of the tumor.

(*British and Foreign Med. Chir. Rev.*)

VI.—*On the Treatment of Unconsolidated Fractures by Acupuncture.*

BY M. LENOIR.

The case which gave rise to this paper was one of ununited fracture of the femur, which came under M. Lenoir's care four months after the accident, and in which, after trying ineffectually to manage it during two months, by maintaining the ends of the bone in exact and immovable contact, he resolved to resort to acupuncture, which Wiessel had already advantageously employed in 1844. Four needles were introduced between the ends of the bones, seven months after the accident, and retained *in situ* for six days, by which time they had excited pain and other symptoms of inflammation. They were re-introduced during other five days at another point; exact adaptation of the fragments and immovability of the limb being sedulously maintained by suitable apparatus. The limb was examined on the twenty-third day, but as the fractured part yielded somewhat under the hand, the splints were re-applied, and the limb re-examined thirty-five days later. Perfect solidity was now obtained; and six months after the operation had been undertaken, the patient was able to leave the hospital, resuming afterwards the ordinary labors of the peasant.

M. Lenoir observes, that there is nothing more difficult in practice than the exactly distinguishing between what should be called unconsolidated fracture, and false joint from deficient callus. Doubtless the one condition is often the consequence of the other; but it may be asked, where does the first terminate

and the other commence? An important question, since the treatment proper for mere delayed consolidation is not that which is suitable for a completely organized abnormal articulation. Most writers state, that in fact a false joint only exists when all hope of obtaining union is lost; as if all fractures were cured within a certain lapse of time, in all subjects, whatever the physiological or morbid condition of these may be. But in subjects even in excellent health, and of a favorable age, six months may pass without union resulting, as every surgeon of an extensive practice can bear witness. In such, certain modifications of the apparatus, additional docility upon the part of the patient, or care on the part of the practitioner, may suffice to secure a favorable result.

It is less, in fact, in the lapse of time, than in the disposition of the fragments, that we must seek the difference between delayed union and false joint; and the teachings of pathological anatomy are here of high import. Observations on man, and experiments on animals, exhibit distinct forms of false joints as consequences of fracture.

1st. In the *pseudarthrosis with continuity* of Breschet, the separated fragments are united by a band or ribbon of fibrous tissue, the laxity of which admits of the movements of the ends of the bones; these are more or less rounded, there is ordinarily no cartilage on their surfaces. Sometimes the ligamentous substance which is attached to, and unites them, partakes of the nature of cartilage, and in certain portions of its extent the ligamentous and cartilaginous tissues become blended.

2d. In the *pseudarthrosis with contiguity* of Breschet, we always find that the ends of the bones are more or less in proximity; their opposed surfaces being, when the fracture is of old date, covered with cartilage; and an abnormal synovial membrane, with a ligamentous substance, more or less resembling a fibrous capsule, surrounding the whole. This kind of false joint has been described by many writers, and is easily produced experimentally. Of nine *pseudarthroses* thus produced by Breschet and Villermé, six were of this description.

3d. The fragments may be devoid of all means of union, the extremities of the bones being mobile, and placed at some distance from each other. Earle and other writers furnish examples in which the interposition of the muscles has prevented union.

4th. Norris endeavors to establish the existence of another form, in which the osseous extremities are united and surrounded by cartilage, movement being possible between them. M. Lenoir believes that this is but a stage in the formation of normal callus, which has been mistaken for false joint.

In respect to the mode of development of the two first named varieties, the fibreus tissue that at a later period unites the fragments in the *pseudarthrosis with continuity* results from the plastic substance furnished by the ends of the bones at the early stages of every formation of callus—solid matter not being deposited. The ligamentous substance is thus always found broader where attached to the fragments, than at its middle part. In the *pseudarthrosis with contiguity*, either fibro-plastic matter is not furnished by the periosteum and fragments of bone—its component parts not being found in the blood, as in several diatheses—or the matter after exudation loses its consistency, and becomes unfit to effect consolidation, as occurs in several severe forms of fever; or again, this matter, though sufficiently secreted, and possessed of the necessary qualities, becomes disintegrated as soon as formed by the extremities of the fragments of the bones themselves, as when the limb is subjected to violent or constant movements.

In all such cases a false joint is formed sooner or later. At an early period, however, the phenomena which characterize pseudarthrosis and simply delayed union, are the same. The sole difference recognizable in these two

states is, that the causes which produce the solution of the formative matter of the callus are in the first case of prolonged or constant operation, while in the other they are temporary and sudden. Thus the solidification of the fracture may remain suspended, or nearly so, during all the time these causes are in operation, and only resume its normal course when the blood, modified by regimen or treatment, can furnish the due solidifying material. So, too, under the operation of local causes, disintegrating the effused matter (as ill reduction of the fracture, excessive riding of the fragments, the injudicious application of bandages, or the incessant movement of the parts) the consolidation is deferred until these errors are remedied. The practical rule is, in all cases to act as we had to do with a simple case of delayed consolidation, and to employ at first only the simplest means, as, for example, acupuncture. This would prove unavailing in a case of pseudarthrosis with continuity, in which resection of the bones would alone avail.

In all cases in which the seton is indicated, acupuncture may be advantageously substituted; for while acting in the same manner as the former, the latter admits of a more graduated application, according to the indications offered and the effects produced. The absence of these advantages in the seton may, in some cases, explain its failure. (*Ib.*)

VII.—*Case of Rupture of the Vagina, with passage of the Fœtus into the cavity of the Abdomen.*

BY M. DANYAU.

This occurred in the person of a little, robust, bow-legged woman, twenty-eight years of age. She had been already pregnant three times, delivery having on the two first occasions been accomplished by perforation, owing to the great contraction of the entrance of the pelvis. On the third occasion labor was induced at the eighth month, and was followed by peritonitis, iliac abscess, and puerperal mania. On the 18th June, 1848, arrived at the end of her fourth pregnancy; she came to the hospital with commencing labor pains. The liq. amnii had been discharged nine hours; and under the influence of strong pains it was hoped, that owing to the small size of the child's head, the narrow orifice might be passed. The severity of the pains, however, rendered the woman very restless, and while tossing about she fell off the bed. She resumed her place unaided, and declared she had received no hurt. However, the pains at once ceased, the head could no longer be felt, the abdomen became very tender, and the woman's voice, pulse and countenance underwent such alterations, as to lead to the conclusion that the child had passed into the cavity of the abdomen.

M. Danyau called on her one hour after, resolved upon attempting turning in preference to the Cæsarian section. On passing in the hand, the uterus was found thrust upwards, a little forwards and to the right—the entire left half of the vagina being separated from it. Owing to the small size of the child, its extraction was performed with more facility than had been anticipated—a perforation at the base of the cranium with Smellie's Scissors sufficing to lessen the head sufficiently. The placenta was easily removed from the abdomen, and no intestine descended through the vaginal aperture. No hæmorrhage occurred, but the patient seemed reduced to a state of hopeless exhaustion. She rallied, however, and in fifteen days, though advised to the contrary, she left the hospital. An examination per vaginam, made on the ninth and fifteenth

days, furnished little idea of the severe lesion that had occurred—scarcely even any irregularity remaining at the place where the rupture had occurred, and the cervix uteri appearing just as it should do at the end of a fortnight. Soon after going out she was seized with iliac inflammation, requiring antiphlogistic treatment, from which she recovered.

M. Danyau refers to Goldson's work (1787), in which the author relates a similar case to the above, and collects various instances to show that many cases reported as examples of rupture of the uterus, have really been examples of rupture of the vagina. This view was enforced in the treatise *De Ruptura*, published by Boer at Vienna, in 1812, in which additional confirmatory facts are adduced. All these cases have been republished in the *Archives Générales* for November, 1827. M. Danyau has not been able to find many cases on record, narrated with sufficient exactitude to assure their identity with his own, as examples of rupture of the peri-uterine portion of the vagina, with passage of the child into the abdomen.

M. Danyau refers to seventeen cases, and in none of which gastrotomy was resorted to, out of which four only terminated successfully—those of Douglass, Ross, Smith and the author. In the thirteen others death resulted, either because the nature of the case was misunderstood, its progress too far advanced for interference—such interference being too long delayed—or from consecutive accidents, of which last, however, only one example is on record. The rarity of such consecutive accidents, and the successful issue of the four cases, teach the necessity of prompt decision, as well as careful examination. (*Ib.*)

VIII.—*On some points of the Surgical Anatomy of the Mammary Region.*

BY M. GERALDES.

In this paper M. Geraldes draws attention to certain dispositions of the fibrous capsule of the breast, which, although adverted to by Sir A. Cooper, and other writers on the anatomy of the organs, he believes have not yet received their full practical application. And the first of these is the occurrence, at the anterior portion of the fibrous capsule, of certain small cavities, filled with fine fat, communicating with the adipose structure covering the organ, and either terminating in *culs-de-sac*, or sinuously traversing the substance of the gland; these fatty substances do not always intercommunicate. At the posterior surface of the breast, the capsule exhibits no asperities or cavities, but consists of a very dense, resisting, fibrous lamella, which is continued into the substance of the gland. The circumference of the fibrous capsule is continuous with the facia superficialis, one lamella of which is fixed to the edge of the capsule, while the other passes behind it; a kind of cavity of considerable size, in which fluids may accumulate, being thus formed. By means of the attachment of this fascia to the clavicle, the mammary gland is, as it were, suspended, and maintained *in situ*, and hence, whatever size it may reach, it does not undergo displacement.

Abscesses of the breast may occupy different localities, some being developed in the adipose tissue covering it, and others within the substance of the gland, or even behind the organ, between it and the fascia superficialis. The glandular abscesses are always developed within the little fatty cavities above described, or in some of the sinuosities which lead from these and traverse the gland. As these cavities do not always intercommunicate, M. Giraldes recommends that the abscesses which form in them should be opened by means of punctures, in place of free incisions, as these last may implicate parts

that are not the seat of suppuration, and may yet fail to open into the source of the pus, which may originate at some distance from the point at which its presence is apparent. When, however, the abscess is situated at the posterior part of the gland, free incisions at the circumference of the organ are required.

In the next place, it is to be observed that the fibrous capsule of the breast completely surrounds all the lactiferous canals, giving to each lobe and lobule of the organ its special envelop. This fibrous covering is more firm and resisting in the young, and more lax in women who have borne children. The consideration of the presence, amount, and destiny of this fibrous sheath, especially where it surrounds the glandular vesicles, is of great importance in enabling us to properly comprehend the nature of certain tumors of the breast. The vesicles or acini terminating the lactiferous canals are liable to become abnormally dilated, and then the fibrous tissue which accompanies them becomes more or less hypertrophied. In this way are produced hard, rounded, movable tumors, of a size varying from a pea to a pigeon's egg, more or less embedded in the substance of the gland. They are especially found in young persons, and are often supposed to originate after external irritation, as by pressure. They have been mistaken for scirrhous and fibroid tumors, and on examination after removal, are found to consist of a whitish or yellowish mass, in which the fibrous element predominates. But upon more minute inspection, this fibrous substance is found to be pierced by cavities of varying calibre, in which is found a mixture of liquid and altered epithelium. In some cases the fibrous hypertrophy may be absent, and the vesicular tumor may inflame, burst, and send forth fungus vegetations. (*Ib.*)

IX.—*A Case of Medio-Carpan Luxation backwards.*

BY M. MAISONNEUVE.

In this paper M. Maisonneuve relates the particulars of what he believes to be an undescribed luxation, observed in the wrist of a man who died soon after a fall from a height of forty feet. At first sight it had the appearance of a fracture of the radius, the hand being carried backwards,so, as to represent the figure 7. On dissection the extensor tendons were found uninjured, though thrust backwards, and the seat of the lesion was discovered to be in the medio-carpan articulation. The radial portion of the scaphoid, the entire semilunar, and a portion of the pyramidal bone, remained attached to the forearm, their anterior and posterior ligaments being uninjured. The bones of the second row had undergone no alteration of their relations to the metacarpus, but they were separated from, and mounted backwards upon those of the first row. The accident was, however, a luxation complicated with fracture, as a portion of the scaphoid remained united to the trapezium,and a portion of the pyramidal, carrying with it the pisiform, had followed the unciform bone. The flexor muscles were stretched, but not torn. The external and internal lateral ligaments of the radio-carpal articulation were completely torn, as were the ligamentous bands uniting the two rows of the carpus. The signs furnished by the accident were precisely those which Voillemier attributes to the radio-carpan luxation; but the diagnosis between these accidents would be of little consequence, as the treatment would be the same. (*Ib.*)

X.—*Case of Cancer of the Stomach.*

BY M. WILSON, M. D.

I have selected the following case for description from amongst many, because the unusual duration of the interval between its arrival at the commencement of the third stage to the death of the patient, is as interesting as it is remarkable. I will not attempt, in this short paper, either to detail the symptoms as they arose, or to enter into a minute relation of the methods of treatment adopted, but merely give a slight sketch of the landmarks, as it were, exhibited in the progress of the disease.

About the year 1845, Mr. C. B. complained occasionally of indigestion and derangement of the functions of the liver and stomach, accompanied with headache, languid circulation, and inactivity of the skin and bowels. For these symptoms mercurial aperients were administered, with varying relief. The attacks gradually became frequent and obstinate, the intervals of ease diminished, and he began to be much distressed by continued constipation. The skin also assumed a peculiar, greenish-yellow tint, characteristic of cachexia, and frequently associated with cancer.

In the early part of 1850, a small, deep-seated swelling was detected to the right of the mesial line, in the umbilical region, which was not painful on pressure. At this time serious attacks of vomiting commenced, and he threw up large quantities of dark-brown, almost black, viscid matter, as often as once a week, and which chiefly came on at night. Towards the end of summer of that year, these attacks of vomiting succeeded every meal, and the matter ejected was in larger quantities, and in consequence he was soon emaciated and weakened.

In September his symptoms became so urgent, that a speedy dissolution was expected. Nitrate of silver, Prussic acid and charcoal were administered, with some relief, for a few weeks; but in December the vomiting and fœtid eructations had acquired their original violence; the stomach would not retain the smallest quantity of solid food for even ten minutes, and he was reduced to the lowest state of emaciation and debility. As a last resource, and when the patient appeared to be dying from innutrition, a mutton chop, thoroughly boiled, and pounded into a pultaceous mass, was given to him, which happily remained in the stomach, and this diet was continued daily.

An unexpected improvement in the disease commenced. On the 31st of March, 1851, he had increased in weight twenty-eight pounds; the vomiting was much diminished in frequency, and the pain in the abdomen was considerably relieved; the tumor, however, retained its size and position. He seemed to have regained his strength, enjoyed exercise, and pursued his avocations with pleasure.

On the next day, the 1st of April, he was suddenly seized with faintness, and ejected from his stomach, with slight effort, a pint and a half of bright red blood. Two days afterwards this was repeated in smaller quantity, and he passed much black and decomposed blood.

He was again extremely reduced, but in about six weeks so far recovered as to follow his ordinary business. From the debility caused by this attack, however, he never entirely recovered.

The cancerous symptoms began gradually to progress; the tumor increased in size; the vomitings were not so frequent, on account of the increased capacity of the stomach, but the quantity vomited at each attack was greater; the eructations were more constant and distressing; increased debility and emaciation followed as a natural consequence, and in January, 1852, he died, excessively wasted in flesh.

A post-mortem examination confirmed the accuracy of the diagnosis. The

pylorus was closed by a cancerous mass ; a ring of colloid matter, which passed in front of the opening, entirely preventing the passage of nourishment into the intestines. Just above this, the structure of the stomach had been destroyed by cancerous ulceration, but the escape of matters from the opening into the cavity of the abdomen had been prevented by adhesions to the under surface of the liver ; these adhesions had evidently taken place for some time previously. It was from this ulceration, no doubt, that the formidable hæmorrhage of April, 1851, proceeded.

It thus appears, that from its commencement. the disease had existed for nearly six years, the last stage being prolonged to the unusual term of two years.

(*London Lancet for June*, 1852.)

XI.—*Case of Variola cotemporaneous with Vaccina, both modified.*

BY ROBERT FOWLER, M. D.

On March 31st last I vaccinated Marianne W., aged three years, a perfectly healthy child. When next seen, April 7th, I was told that on the very day (April 1st) following vaccination, she became very sick, vomiting frequently and feverish. On the evening of the next day, April (2d) the mother fancies that there was a little redness about the chin, which, however, on the 3d April assumed the aspect of decided papulæ over the whole face, arms, legs and body. I now ascertained that at the school to which the child had gone up to the day of its being taken ill, two or three of the scholars had had the small-pox about a month ago, and had returned among the other children some few days back.

April 8th. The vaccine vesicles (seventh day) are larger than the variolous, very little elevated above the cuticle, irregular in shape, being not perfectly circular, but flattened and indented, and lobulated at the edges. There is evidently very little fluid in them, and no appearance of areola. The entire body is marked with distinct variolous vesicles, (fifth day) having the same flattened aspect as, but smaller than, the vaccina ; and being so little elevated above the surface, they do not present that "shotty" feel so characteristic of variola, especially in its papular stage. Febrile action slight.

9th. The variolous eruption (seventh day) is more turgid; that on the face is pustular, and a few of the pustules are beginning to scab ; that on the arm is hemispheroidal, prominent and pustular ; that on the legs is opaque, but not distinctly pustular ; the central depression still existing in some of the vesicles. The vaccinia (ninth day) is not more elevated, though the fluid seems more opaque ; the vesicles are now about half an inch in diameter, but still present that irregular, indented appearance around their margin, external to which there is now an areola of about one line in diameter, as there is also around each variolous pustule. The variolous vesicles in the immediate neighborhood of the vaccinia are much smaller and less opaque than elsewhere, neither are they so turgid or spherical as in other parts of the body. The mother attributes this to the child always lying on that side (which however, by some oversight was not vaccinated) presents well filled vesicles ; the eruption of the right leg also is somewhat less prominent than that on the left, though certainly there is not that marked difference observable in the vesicles of the two arms.

10th. Variolous eruption (eighth day) entirely pustular, scabbing going on

in the face. Areola of vaccine vesicles (tenth day) no longer, though the vesicles themselves are larger, and beginning to lose their indented margin. The variolous eruptions around vaccinnia is now pustular.

12th. Scabbing progressing on the face, (tenth day) and the pustules on the arms shrivelling up; no secondary fever. A scab perceptible (twelfth day) on each vaccine vesicle; no increase of areola, nor is there any surrounding induration.

14th. Some of the pustules on the legs shrivelling (twelfth day.) Vaccinia (fourteenth day) scabbing, the scabs being rather conical, and of a dirty light brown in color; no increase of areola.

16th. All the pustules of the legs shrivelling (fourteenth day). Scabs of vaccine vesicles (sixteenth day) have fallen off, leaving an irregularly circular purple-red mark, larger, though otherwise similar, to the stains of the variolous eruption; the vaccine stains are perfectly flat and smooth, without the slightest indication of the small depressions and radiating lines characteristic of a good vaccine cicatrix.

19th. The whole body presents purple-red stains.

Remarks.—Considering vaccinia as a disease *sui generis*, we have here two exanthemata co-existing in one person, and each by its presence modifying, but not superseding, the regular course of the other. That the vaccinia was modified, is shown by the irregular shape and flattened condition of the vesicles, by the absence of the areola and surrounding hardness, by the shape and color of the scab, by the duration of the eruption—the scab having fallen off on the sixteenth instead of about the twentieth day—and by the character of the remaining cicatrix. The size of the pustules, and the absence of the secondary fever, notwithstanding the duration of the eruption was not considerably shortened, indicate that the variola was of a modified kind. By those sceptical of the prophylaxis of vaccination, the above case will be greedily seized on; but are we not from past experience warranted in surmising, and even affirming, that although the discovery of Jenner was in this case incapable of arresting or superseding the progress of the poison already concocting in the blood, yet that to the co-existence of the vaccine virus this child owes the safety and mildness of its attack? (*Ib.*)

XII.—*On Instantaneous Insanity, considered in a Medico-Legal point of view.*

BY DR. P. BOILEAU DE CASTELNEAU.

[The following is an abridged translation of a paper which appeared in the Annales d'Hygiene et de Medecine Legale, for January and April, 1851, and we also observe that it has been transferred and published in full in the Annales Medico-Psychologiques. It treats of a subject which, unfortunately, requires to be carefully investigated in our country, as well as abroad, and although it can scarcely be regarded as presenting novel views, yet it gives a fair and full account of the prevalent opinions, at least on the continent of Europe. While it may be a very serious question whether these opinions should be incorporated into our codes, there can still be no doubt but that physicians having charge of the insane, should be prepared to give their views with a perfect knowledge of the facts and doctrines that have been promulgated.—*Ed. Am. Jour. Insan.*]

Instantaneous, transitory, temporary insanity is a disease which manifests itself suddenly. The subject of it is excited to acts which nothing in his previous history would lead us to suspect.

1. In certain instances the violent act is not preceded by any reasoning.

2. In other cases there is some reasoning, but it sins against one or more of the rules of logic, although others of these may be strictly followed.

3. Occasionally we can discover no predisposition to insanity, and again this is well marked.

4. It is not altogether uncommon that the unfortunate subject has been aware of the danger that menaces him; that he has struggled against it; that he has appealed for assistance, and has sought to remove from the place or situation which has threatened to become the theatre of a deplorable occurrence. But there are cases also in which the force of impulse has triumphed over conscience.

The first act of insanity may be a murder, and to this the disease may succeed in its intermittent or continued type. But when a criminal action or a murder is the sole indication of insanity, it constitutes the instantaneous, temporary or transitory insanity of authors, [Henke, Marc, Cazauvieilh, etc.] and it is this which we are now about to consider.

We may here observe, that aside of this species, we find another which renders the diagnosis difficult. It does happen that after the commission of a murder, fear or despair may be the cause of supervening insanity in the criminal. The physician must carefully study the antecedents of the accused, and those of his family, with the circumstances of the act, in order to establish the difference between sanity and insanity.

A celebrated jurisconsult, who will not be taxed with too much leniency, recognizes the reality of instantaneous insanity. "There are madmen," says Bellard, "whom nature has condemned to an eternal loss of reason, while there are others who lose it instantly, owing to severe pain, sudden surprise, or some parallel cause. The only difference between them is in its duration, and he whose head has been turned for a few hours or a few days, is as completely insane during this ephemeral delirium, as another in whom it has continued for years. When the maniac has caused some grievous misfortune, he should be shut up; this is justice and precaution; to send him to the scaffold is cruelty."

Amongst the authors who have discussed this delicate subject is Marc, and in his work he inquires whether we have not met in society with persons, rational and of an established moral character, who, notwithstanding, avow, that in the course of their lives they have, at least once, been surprised and betrayed into a sudden excess of extravagance, and indeed of atrocity. Indeed he quotes himself as an example, having on one occasion been seized with an urgent desire to push into the water a young person, seated on the parapet of a bridge. The horror of the idea caused him to run away from the spot. Talma, the celebrated tragedian, confessed to a similar thought. Professor Lichtenberg states in his work "Observations sur luimeme," that he has often experienced pleasure in reflecting on the means by which he might destroy the life of this or that person, although he had never conceived a plan for executing the crime.

The man of letters, D., viewing a beautiful painting by Gerhard, was seized with so irresistible an impulse to destroy the canvas with a kick, that he was obliged to turn his back on it.

Dr. Michu relates the history of a female in the country, who, having given birth to her first child, now ten days old, was suddenly agitated with the desire to murder it. The idea made her shudder; she fled from her house, but again returning experienced the same impression. She left a second time for a visit to the priest, to whom she confided the cause of her agitation.

Now, in these cases the will remained healthy, and triumphed over the sudden impulse. But when the opposite happens, there is no moral responsibility. This last indeed requires a free perception, a proper association of ideas, and an ability to examine and compare them, and a well-balanced condition of the mental faculties. Such is the aim of education, and if well directed, it produces moral and intellectual order.

In examining authorities on this subject, we shall find many who concur in the belief of the existence of instantaneous insanity.

The editor of the Journal of Practical Medicine and Surgery cites five cases of this nature. In four, their previous conduct had been altogether irreproachable. In the fifth, the subject, a female, had killed four persons, and among them her mother,

wounded a fifth, broken the furniture, and caused the wine to flow from a barrel. On being arrested, in reply to the question, "has any one desired you to kill your mother?" she said, "No, a bad rush of blood [coup de sang] has caused me to do it. My poor mother, that I loved so much!" And here tears followed. "But if you loved your mother, why did you kill her?" "What do you wish me to say?" Extenuating circumstances were on the trial admitted, and she was condemned to ten years imprisonment with hard labor.

Hufeland's Journal reports four cases of a similar nature, related by Dr. Loeventhal. One is as follows:

A shoemaker aged 33 years, of the sanguine temperament, a quiet disposition, industrious, temperate, and in good health, lived happily in his family during four years. On the 12th of April he got out of bed in good season, to go as usual to his daily labor. An hour afterwards his wife noticed his incoherent discourse and wild appearance. Suddenly he threw away what he held in his hand, seized his cutting knife, and rushed on his wife to kill her and her infant. She had great difficulty in escaping. Several persons, however, rushed in, and the physicians on arriving, bled him and prescribed medicines. By mid-day he became calm and slept. At night he had full use of all his mental faculties, but recollected nothing of what had happened during the day. The other cases are analogous.

The celebrated Hiern, of Berlin, publishes this case. A public functionary, generally esteemed, and still living, [1817] the Counsellor of State L, at Berlin, has enjoyed good health always. One night he awoke suddenly, his breathing was stertorous; his wife wished to assist him, but he attacked her with violent fury, and made repeated attempts to throw her out of the window. After a contest of an hour and a half he desisted, from weariness, and the cries of the victim brought aid. An emetic put an end to this fit of insanity, and during 14 succeeding years there had been no return of it.

Again a female, subject at every menstrual period to mental disorder, grossly insulted at one of these, another female, and had no subsequent recollection of it. Professor Barends, of Frankfort, on the Oder, was consulted on the case, and gave it as his opinion that such a condition was quite possible.

Dr. Boileau De Castelnau proceeds to give additional cases from his and others experience, and observes that in some of them a dominant circumstance, as a cerebral affection in infancy, leaves such a diseased condition of the encephalon, that the organ is unable to resist an access of violence, and then a slight exciting cause supervening, the individual becomes incapable of preventing the criminal act at the time, and subsequently losing all recollection of it. Sometimes these insane have the good fortune immediately to have persons near them who understand their peculiar state. In the following instance, kleptomania [stealing mania] was on that account not followed by judicial proceedings.

The case is given by Dr. Thore, of a boy aged seventeen years, who was seized with hallucinations of sight and hearing during convalescence from a very severe attack of typhoid fever.

He left home secretly, went to a neighboring fruit seller, offered to buy the whole contents of his shop, and stole a case of prunes. On another day he leaped over a wall, in order to get the grapes in the garden. Eating these, he was attacked with fever and diarrhœa, but still continued to steal every thing on which he could lay his hands, saying it was for his brother. The insanity increased; he was placed in the Bicetre, where he died of epidemic cholera in 1849.

Our actual state of knowledge on this subject warrants us, as Doctors Bouchet and Morel have particularly insisted in their writings, in recognizing diseases produced by a sensibility which the judgment cannot direct, and manifested by disorderly and criminal acts. This form of insanity, indeed, brings along with it more breaches of social order, than that which arises from perversion of the intellect.

A distinguished psychologist, Dr. Lunier, in agreement with many authorities, asserts, that through various causes, individuals thus situated are unable to withstand the power of some predominant idea, either previously existing or suddenly excited. Hence this idea may induce suicide, murder or robbery.

To the numerous instances already on record, may be added two which have occurred particularly under the observation of the author.

A female concealed her pregnancy. Her parents urged her in vain to confess it, but she obstinately refused to do so, although a widwife, on examination, had no doubt of the fact. She was delivered alone. With a small pocket knife she inflicted very many wounds on the body of the infant, and completed the whole by cutting off its head. The bloody remains were concealed under the bed clothes, but her parents discovered her situation and the murder. She did not deny it. A neighbor said to her, "You have committed a great crime, and justice will avenge itself." "I deserve it," was her answer.

To the public prosecutor she owned her crime, and attributed it to the abandonment of her lover, adding, "do with me as you please."

Now by distinguished medical jurists in this speciality, the great number of wounds inflicted is deemed a characteristic symptom of insanity. It demonstrates a complete want of moral sensibility, and of the proper appreciation of actions. So also with the circumstance of the bold avowal of the crime.

But in this case also was urged the excuse of a hereditary insanity. Affidavits were presented, showing that the mother of the criminal had been attacked with paralysis during her pregnancy with her first child; that she lost the use of her right side, and that this inability continued during the remainder of her life, or for the 12 ensuing years. Further, that during the existence of this palsy she had three children; the first died three days after birth; the second, the present criminal, had been irregular at the beginning of puberty, and required medical treatment; while the third, a boy, was during the first five years unable to talk or walk. Besides this, it was shown that the maternal grandfather had died in a state of complete mental imbecility. In conclusion, this official paper stated that the female was of a respectable family, and had undoubtedly been seduced under a promise of marriage.

Our author insists much on the condition of the criminal, being in a puerperal state; greatly influenced by shame and despair, and quotes from Doctors Reid and Webster, the comparatively great number of cases of this description among the patients in an asylum.

The Jury found her guilty, with extenuating circumstances (circonstances attenuantes), and she was condemned to imprisonment for ten years at hard labor.

Another case was brought before the same court, and directly under the observation of the author.

An inhabitant of the commune of Gard, returning from labor, met his wife and accosted her, "my merry one, (gaillarde) is the soup ready?" She replied with the blow of a knife, which killed him, and immediately on this endeavored to hide the body. There was or had been no antecedent circumstance occurring in the family as a motive for this crime.

She was arrested, and on her way managed to escape from the officers of justice, and threw herself into a water sluice, from which, however, she was taken out alive.

On trial, it was proved that she belonged to an insane family. Her maternal aunt had for many years labored under mental alienation. The daughter of this aunt was morose and subject to extreme attacks of fury. Again, the father of the criminal was proved to have frequent fits of rage, so as to induce his neighbors to deem him out of his head; the mother was no better; the maternal grandmother had drowned herself without any known cause; and finally, the criminal herself, since her last pregnancy, had been frequently seized with violent attacks of rage, without any apparent reason. She was confessedly feeble-minded. In one word, the inhabitants of the whole Commune had for a long time united in deeming this an insane family.

Dr. Castelnau observes, that this case is settled as to its character, by the law laid down by Georget. That author, after a long research into the nature and history of homicidal mania, announced the following as a diagnostic between crime and the blind and irresistible impulses of the will: "A horrible act, a murder, an arson, committed without cause, without motives of interest, by an individual whose actions have previously been correct, must be the result of insanity."

In the present instance, this female had no motive, interest, or even pretext to murder her husband. She belonged to an insane family, and every thing proved that she had acted under an impulse of instantaneous mania. She was pronounced guilty,

but extenuating circumstances were admitted, and the punishment was reduced to imprisonment with hard labor for ten years.

It is manifest from these repeated verdicts of juries, that whilst they countenance the idea of insanity, they are still unwilling to return such unfortunate persons upon the community. This brings us to one of the great wants of the present day, viz: special asylums for insane persons, authors of qualified offences or crimes, and to which our courts of justice may send all of them at once.

In Belgium, a law passed June 18, 1850, sanctions this plan. In England, a part of Bethlem is set apart for the criminal insane. The Commissioners of Lunacy in that kingdom solicited, in their report to Parliament, in 1844, either an increase in this respect, or the erection of a bulding solely for this purpose.

But after all, it is of most importance, as has been already pointed out by many writers on insanity, and by myself in a treatise on the Penitentiary system, published in 1845, that education should be primarily attended to. In this resides the prophylaxis of social order.

If these females had received elementary education, in the true sense of the term, neither of them would have committed murder. Their moral and intellectual faculties would have been so much exercised, as to enable them to overcome the fatal impulse.

Let us not, however, be understood to assert, that a uniform system of education can be obtained so as to avoid all evil. The mental faculties are extremely diversified, and there should thus be instruction appropriate to individualities. And even when this has been attained, we must still be charitable, and judge every one according to his particular strength of mind. In one of the cases before us, the female with the heditary tendency was cruelly seduced, and the criminal thus acting ought, in justice, to have shared her punishment.

Entertaining, then, a strong conviction, that want of education is a fertile cause of crime, we have, in common with several friends, and aided by an intelligent administration, obtained the appointment of instructors in the central prison at Nismes, and the example has been followed in several others.

Prisons such as they are destroy, and do not correct, and we are forbidden to take the life of a fellow creature. (The author quotes several texts of scripture in defence of this.) There should be a Christian Penitentiary System.

Conclusions.—1. Instantaneous alterations of the mental faculties occur, inducing instantaneous insanity.

2. The first manifestation of this sudden change may be what we style a crime.

3. The person committing such an act should be placed in an asylum especially set apart for such.

4. They should remain there until examined by a special jury, and who shall certify to their cure.

The minimum period of sequestration should be fixed by the court.

Further as to these culpables; no more death punishment, but a conversion of the prisons into places of moral, intellectual and professional instruction.

Let us indulge the same commiseration towards aberrations of the mental faculties as we do with other diseased changes. Let us bestow equal attention on both.

This doctrine has nothing dangerous in it; the danger consists in not acknowledging the facts which constantly occur, and thus not providing against or preventing the evils which more or less menace all.

Part Third.

REVIEWS AND NOTICES OF NEW WORKS.

I.—*Outlines of a Course of Lectures on the Materia Medica, designed for the use of Students, delivered in the Medical College of the State of South Carolina.* By Henry R. Frost, M. D.

Pathological Anatomy, an Address delivered at the Royal Cork Institution. By Thomas S. Holland, M. D., M. R. C. S. L., etc.

Annual Catalogue and Announcement of the Medical Department of the St. Louis University. Session 1852—53.

Annual Announcement and Circular of the Memphis Medical College. Session 1851—52.

Amputation of the entire Lower Jaw, with disarticulation of both Condyles. By J. M. Carnochan, M. D., Professor of Surgery in the New York Medical College.

Proceedings of the Medical Association of the State of Alabama, held in the city of Montgomery, December 8, 1852.

Essay on Empyrical Remedies, read before the Medical Society of the State of Georgia. By Robert Campbell, M. D.

Report of the Eastern Lunatic Asylum, in the city of Williamsburg, Va., 1851.

We shall first notice the work of Dr. Frost. This important and greatly diversified branch of medical education, (Materia Medica) is frequently passed over by the student of medicine as of minor importance; a proper consideration of its claims will at once banish so erroneous an opinion. Intimately connected with Therapeutics, Medical Botany, Chemistry and Pharmacy, the wide expanse of nature, in lavish profusion, invites the inquiring mind to cull from indigenous and exotic plants all such as may be rendered available to man's medica-

tion; and diving beneath the surface, the metallic and mineral kingdoms yield a rich supply for the laboratory; and here, under the opetion of the alembic, the crucible and other chemical processes, the Materia Medica multiplies her agents, and the skilful practitioner *mends the constitution* by making disease subservient to his art.

It has been urged by some persons (the number may be very limited) that it would be well to discard all articles from the Materia Medica, except a dozen or two, and confine the treatment of disease to the select few, and that success would then be as great as at present. Had these persons maintained that all diseases might have been as successfully treated by *them* under such a system, we could not have dissented from the proposition; but to deny to medical men generally the benefit of all new remedies, with a long list honored for their usefulness more than for their antiquity, would be to deprive the indefatigable Dunglison of a portion of his well earned reputation, and of the merit of much valuable investigation and research, and to clip from the "Syllabus" of our author some of his "family" arrangement, the proportion of which could not be interfered with without depriving the student of much valuable and concise information.

The outlines of the lectures before us are the production of a Southern man, but as their usefulness is not confined to sectional interest, the student especially may peruse them, from the "Modus Operandi of medicines," at the beginning, to the chapter on "Aliments" at the close of the volume, with profit.

That there are no opinions expressed, and doctrines more than vaguely intimated in the volume, which might have been omitted without prejudice to the fair name of the author, or without many lasting regrets on the part of the reader, is more perhaps than Dr. Frost himself anticipated, and more perhaps than the reader could justly expect, if he consider that errors sometimes are but admonitions in disguise.

The views of the writer upon the "application of Cathartics to diseases," will, we think, be received by a large portion of practitioners with some reserve. In speaking of this class—Cathartics—our author says, "In fevers of every variety they are indicated. . . . In our bilious grades of fever and in *yellow fever* they are invaluable. . . . Not only in these fevers is the utility of Cathartics established, but even in *typhus*, and the weaker forms of fever."

The author of the "Syllabus" will doubtless pardon us, if to some of these propositions we raise an objection, and interpose brief comment.

It will not be denied that the legitimate action of Cathartics is to

operate as evacuants—frequently to the re-establishment of deranged health; in such case they have been "employed with some advantage;" but the alimentary canal may discharge its foreign and fœcal matter, congestions may be relieved, and still often the fever does not abate. Again, there may be a high state of cerebral excitement, with great prostration of vital power, as sometimes exhibited in yellow fever; or there may be exalted sensibility of the whole primæ viæ, with other occasional symptoms of the same "grade" of fever; and again in typhus fever, the susceptibility of the intestines to the action of Cathartics is greatly increased, especially after the incipient stage; and yet we are informed that "in these fevers," yellow fever, typhus, etc., "is the utility of Cathartics established."

As to "the weaker forms of fever," where the prostration of strength is greater than occurs in typhus, and where, too, the pulse is often more uniformly low, (for to such qualities only, we conceive, will "the weaker forms of fever" apply) it is needless to dwell upon, no such fevers having yet been classified.

In a book containing much that is assuredly useful, and which is intended as a future guide to those whose lamps have not yet arrived at full burning, we regret that Dr. Frost should have made such a sweeping "application of Cathartics" to fevers, and that he should have committed so grave an error, or so singular an oversight, as to assert that in the treatment of them "there is no remedy that can alone be depended upon."

It were almost unnecessary at this late day to remind the lecturer, (of which he cannot but be aware) that in most varieties of fever we have a remedy of the highest utility, to those who employ it aright, and upon which in an almost infinite number of cases we "can alone" depend to shorten the duration and lessen the intensity of fever—we refer to Quinine—under the employment of which in no infinitessimal doses, a high state of nervous excitability, with an exalted arterial action, yield to the sedative, the diaphoretic and the anodyne influence of this great agent. To fulfil the indications then in some of the types of fever to which we have alluded, 20, 30 or more grains of Quinine, combined or not, as the case may require, with from 2 to 4 grains of Opium, with soothing or laxative enemata, will, by reducing the frequency and volume of the pulse, causing sleep and powerful diaphoresis, be found of the last importance; and which, if neglected for a Cathartic or an expectant course of treatment, will often render all medication unnecessary; for the patient, exhausted by excessive nervous irritability and a depressed vitality, sleeps in death.

"The maximum dose," says our author, "varies much with different practitioners—with ourself, the dose varies from one to five grains repeated;" a repetition from which it might reasonably be expected symptoms would "grow from bad to worse," for upon the authority of Dr. Frost we are presently informed that "in small doses, (i. e. Quinine) as ii or iii grains, it has produced an increase of thirst, headache, restlessness, so much so, that it was necessary to discontinue it." If Dr. Frost intended us to understand that it was to *tender infants* that he varied the dose from one to five grains, we can only regret that he has not so expressed it in the book; its present reading does not even give him the benefit of *hope deferred*, or construction falsified.

Dr. Myer, of Berlin, who has recently written upon the treatment of Intermittent Fever by Quinine in (what is termed by that author) large doses, states, that simple intermittent fever may be cured by a single large dose (ten grains) of Quinine, but that in Heidelberg, where intermittent fever is neither endemic nor obstinate, from 40 to 120 grains have usually been required in the ordinary treatment. Other European and Continental writers are availing themselves of what they once thought the temerity of American practitioners, with regard to Quinine.

It must be borne in mind that in the latitude of Berlin, 53°, fevers do not rage with the same degree of intensity, even if they are of the same type, as in the low latitude of the Southern States, where long continued and excessive solar heat are powerful excitants. We may therefore consider 10 grains of Quinine in Berlin (relatively) as large a dose as 20 or 30 grains with us.

Singularly at variance is this statement with the observations of some medical gentlemen of Alabama. We refer especially to these, because they are of the South, and because the doctrine and practice of the writer, whose book in no unkindness we are called upon to comment, is intended for Southern as well as general teaching. In his recent report to the Alabama Medical Society, Dr. Ames, after describing a case of typhoid fever, in a black man, 22 years of age, which proved fatal in five days, observes, "a dose of castor oil, which he had taken previously to my visit, operated violently, and was followed by a diarrhœa more or less active while the attack lasted, the evacuations from the bowels, and also from the bladder, being made involuntarily."

Another passage equally to the point is found in the report of Dr. Cilley, read before the same Society. We quote only the closing passage of his address. "The prevailing type of fever in this locality during this year has, as usual, been remittent, of which we saw some exceed-

ingly stubborn cases. As a general rule in these cases, as well as in intermittents, I have found Quinine more necessary to arrest the paroxysms than in previous years; and in the treatment of all cases of fever I have been compelled to use Cathartics with the greatest caution, as there was an almost universal tendency to hypercatharsis when they were used. Indeed I have seen mild laxatives produce excessive purgation."

We have now endeavored to establish two points; first, that the dose of Quinine, from "one to five grains repeated," which is the writer's "maximum" dose, is entirely insufficient to arrest *speedily*, even if it will arrest at all, the generality of cases of fever occurring in this Southern latitude; with how much efficacy such doses of Quinine might be employed in the fevers of Continental Europe, we have already shown.

Secondly—We have endeavored to point out, that "in fevers of every variety" Cathartics (not even the mildest) are *not* "indicated;" and that in typhus and typhoid fevers especially, their employment, as a rule, is prejudicial.

If our author in some parts of his book, has expressed opinions at variance with those entertained by a large and respectable portion of Southern practitioners, and there could be much less objection to the opinions expressed, than to the practice implied, we turn with pleasure to the second division of the book, under which we first find Epispastics dwelt upon somewhat in extenso. The principle of employing counter-irritation, or of exciting action in one set of vessels and organs to relieve others of a morbid state, is of ancient origin, the practice having most probably commenced with the father of medicine. The substitutes employed by the Greeks were irritating vegetables and powerful caustics. "It was not," writes the lecturer, "until the science was more advanced, that the more common practice, that of employing cantharides, came into vogue—their introduction into the Materia Medica being attributed to Aretæus, a physician of judgment and learning, who flourished a little before the time of Galen."

The employment of blisters in the plague which prevailed in Italy in the sixteenth century, gave rise to a more accurate knowledge of their virtues.

In continuation of this subject we find the following judicious remarks: "In typhus fever blisters become very useful, when the powers of the system show a tendency to prostration, where the contractions of the heart become languid, and the patient struggles under anxiety, restlessness, delirium, difficulty of breathing, etc. . . . Of late the delirium which so commonly attends in the advanced stages of this dis-

ease, has been considered as more effectually treated by blistering the whole surface of the cranium."

In continued fevers Dr. Frost considers blisters inadmissible in the commencement; their use should be deferred until the action of the heart and arteries has subsided.

Amongst the formulæ which the writer has introduced in his work, many will be found valuable; but upon these we cannot enlarge.

The season is now approaching when Medical Colleges and their worthy Professors will commence their campaign; outlines of lectures will then be of especial service. We trust the South Carolina Professor will meet the reward of his labor by a rapid demand for the fourth edition of the "Syllabus."

Dr. Holland has sought to establish in his Address, with no small degree of acumen and zeal, the importance of Pathological Anatomy, especially with the view of founding a separate chair for teaching this branch in the Dublin University and in the Queen's College, Ireland, so that she may not be behind her sister country and Continental cities, which have long since acted upon the suggestions contained in the Address. For the proper and successful study of Pathological Anatomy, the use of the microscope, and engravings of microscopical appearances, are strongly and justly urged, so that it may be made as available in diagnosis and the successful treatment of a variety of diseases, as it has already proved triumphant in renal affections. "The presence of albumen in the animal fluids and secretions," observes Dr. Holland, "has been found to play a most important part in modifying our opinions of the causation of many diseases, and forms a leading therapeutic indication. The name of Dr. Bright will be handed down to posterity connected with this highly valuable discovery in renal pathology, and he has pointed out the value of this symptom, in its relation to effusion into the serous cavities, especially of the arachnoid." Hydatids have also been discovered in fluids obtained from tumors by the aid of the microscope; as well as half digested muscular fibre, and biliary matter, showing that the abscess from which the fluid was taken communicated with the bowel. Vander Kolk has observed, in the Medico-Chirurgical Review for 1851, in the expectoration of phthisical patients, the elastic fibres which surround the cells of the lungs; under a power of two hundred diameters they appear arched, very thin, with sharp borders, at times covered with fat, which ether removes, and he cautions us against confounding them with a species of conferva, which

forms rapidly in the expectoration, especially when it contains fat; but the ramifications of the conferva, terminating in tumefied cells, distinguished them from the elastic fibres, and these last are seen most certainly when the tubercles begin to soften; this sign, therefore, is the more valuable, as it is best marked when most required, namely, at the early period of the disease.

A good knowledge of the subject of Pathological Anatomy is exhibited in the Address before us, and the laudable desire to stimulate, and to impart it to others, will doubtless be exhibited by the author in his lectures at the Royal Cork Institution.

We must with all humility and candor acknowledge, that our medical friends of the State of Alabama have far outstripped us in assiduity and labor, the evidence of which is the publication of the proceedings of the Medical Association of the State, at its fifth annual meeting, in neat pamphlet form of 130 pages.

The force of example is great; we sometimes find it much easier to imitate the works of others, than to be the original architects of an undefined course; the mariner may fearlessly sail upon the expanse of the ocean, but the pilot must safely direct his course to anchorage. Now for the application.

Three annual sessions of the "Louisiana State Medical Society" have been held in the city of New Orleans, the Presidents have delivered annual addresses, which have been pronounced very good, the minutes have been "read and approved" in due form, and pamphlets have been issued from the press *upon authority*, but where are the reports of committees? Few, very few have been made; amongst those which have been read, talent, research and industry were conspicuous; but they for the most part found a resting place where no *light shineth;* but with incentive to action before us we must apply ourselves to the work, and send forth in *book form*, after the next annual session, reports full and complete, upon the subjects assigned to the committees. Country members will therefore bestir themselves, and with their zealous aid we may hope to accomplish much.

But to the proceedings of the Alabama Association. Fevers and Dysentery are the prevailing diseases of Alabama, as in fact they may be said to be of the South-western States, and upon these, with the treatment employed, the reports are principally made. The papers are practical in their character, and the observations of their authors judicious.

The treatment of that formidable and often intractable disease, Dysentery, has received much of the attention, as it has also required all the skill of the members of the Association, to carry its victims to a successful issue.

From the reports, we find the Saline treatment to have been very generally employed, and the success attending it has been good. There are some, however, who from experience or not, are disposed lightly to esteem the practice. Dr. Cilly observes, "Active and full depletion, emetics, cathartics, particularly salines, anodynes, mercury, astringents, quinine, ice and blisters, were all resorted to, but still the disease ran its course, apparently uninfluenced by all our efforts." And again, after a depletive course and blisters, Hope's nitric acid mixture, with some of the vegetable astringents, restrained the evacuations.

There is also a long paper upon Indigenous Botany; and another, which is well written, upon periodicity in disease.

The talent and industry displayed by the members of the Association is highly commendable, and the diffusion of their labors, a commentary upon the intelligence of a portion of the medical faculty of our sister State. G. T. B.

II.—*Obstetrics; the Science and the Art.* By Charles D. Meigs, M. D., Professor of Midwifery and the Diseases of Women and Children in Jefferson Medical College, etc., etc. Second edition, revised, with 130 Illustrations. Philadelphia, 1852.

As this work was written avowedly for students, whose tastes it is fair to presume are not yet fully formed, it is to be regretted that the author did not, in issuing the second edition, correct the many defects and blemishes which crept into his style in the first edition, some of which we pointed out in our notice of the first issue. Although some improvement in this respect may be observed, yet the composition of the work is so tarnished with foreign idioms and Greek derivatives, that the attention must be frequently diverted from the subject-matter, whilst contemplating the learning, the research and the genius of the author. For example, take the following sentence: "*Either the ovarian stroma is active and regular in the performance of its mensual physiological act of ovulating, or else that a gravid state prevents the sign of the act from becoming manifest.*" Such phraseology may be easily understood by

readers as learned as the author; but as the book was written confessedly for students, certainly such have a right to be addressed in language less ambiguous, more simple, and free from every thing like circumlocution.

The vast learning and the great experience of Prof. Meigs are, in a measure, sealed from the medical student, purely on account of the style and manner in which he endeavors to communicate it to others. In the foregoing remarks we have only thrown out some objections, well founded, as we conceive, against the author's style; but we commend the *matter*—the vast number of important facts—observations and deductions, which are apparent on every page, from the beginning *usque ad finem.*

Our esteemed librarian, T. L. White, 53 Canal street, has the work for sale.

III.—*The Principles and Practice of Surgery.* By Wm. Perrie, F.R. S. E., Regius Professor of Surgery in the Marischal College, and University of Aberdeen, Surgeon to the Royal Infirmary, etc. Illustrated by 316 Engravings. Edited with additions by John Neill, M. D., Surgeon, etc., Demonstrater of Anatomy in the University of Pennsylvania. Philadelphia, 1852.

The author of this work is, we believe, but little known in this country; but this volume, when it becomes familiar to the student of Surgery, will impress him with the good sense and sound practical views of the author. Mainly designed, as all such works professedly are, for the class of the University to which the author is attached, it is simple in its arrangement, limited in its object, and practical in its bearings. Without any pretensions to originality, it is yet quite a readable book, and does not fall much behind such works as Druit's, Liston's, Malgaigne's and similar popular volumes on Surgery. Dr. Neill has enriched the work by the judicious selection of his notes. The book contains 779 pages, is well illustrated, and printed on good clear type.

T. L. White, 53 Canal street, has received the work.

IV.—*On the Use of Quinine in Continued Fever.* By W. M. Boling, of Montgomery, Alabama.

This is the title of a paper contained in the Original Department of the New Orleans Medical and Surgical Journal for July, 1852; and one the practical precepts of which, if we are not greatly mistaken, are better calculated to place in a favorable light before the profession its distinguished author, than any thing we have recently read from his pen. But notwithstanding this our unqualified commendation of the performance as a whole, we are far frem considering it in detail as free from blemishes, some of which, perhaps the more glaring, we will endeavor, in the course of the following brief notice, to set forth.

Being thoroughly impressed for some time past with the belief, that there were not only one, but perhaps several varieties of fevers common to the Southern States, in certain stages of which the employment of Quinine was of rather doubtful efficacy—induced us, in a paper published in the Western Journal of Medicine and Surgery for February, 1847,* to state that this "remedy, in the hands of those who entertained different views concerning its operation, and who are in the habit of prescribing it at the time of high febrile excitement, to the almost entire exclusion of the lancet, the cold bath and mercurial cathartics, were, in our opinion, doing more injury to the constitutions of their patients, than ever resulted from the employment of any other vegetable remedy; why in the treatment of fever, where a furred tongue, nausea, and torpor of the liver and bowels, with yellowness of the skin, exist to a considerable extent, any good results should be expected from the use of a remedy which does not evacuate in any visible manner, and which, according to some, is a powerful narcotic—was to us passing strange." Again, in the same article, (page 139) we observe that "so far as our observation extends, in the inflammatory variety, the type being here evidently continued, this remedy was seldom if ever admissible." These views, at the time honestly entertained and candidly expressed, as the result alone of personal experience, were considered by Dr. Boling of so doubtful a character, as to be made the subject, to say the least of it, of quite an ungracious criticism;† but having long since ceased to smart under this worse than Russian castigation, and being as yet without any reliable data, based on actual personal experience

* Remarks on the Pathology and Treatment of Fevers, page 128.

† New Orleans Med and Sur. Journal, page 752, May No. 1847.

sufficient to warrant us in asserting that Quinine does possess the power, in any sized doses, or mode of administration, of breaking up *a strictly continued fever*—causes us at present to dismiss the subject, and proceed, without farther preface, to what we consider the more objectionable parts of Dr. Boling's paper, and in doing so have concluded to let the Doctor speak for himself.

"There is considerable diversity of opinion among Southern physicians, as to the effects of Quinine in continued fever, more especially typhoid fever, which within the few years past has appeared to spread itself from the points in which it would seem to have been long known, into others in which it had been but rarely seen. One writer, for instance, R. F. Gibbs, M. D., of De Soto parish, Louisiana, in the 2d volume of Fenner's Southern Reports, speaking of typhoid fever, remarks—From the mixed nature of many of the cases which came under treatment, and the decided periodicity, I was reluctantly impressed with the idea that Quinine would prove a valuable adjuvant in its early stages; but after repeated trials in doses large and small, I was forced finally to abandon it entirely, as not only useless in every case, but in many cases decidedly prejudicial to the patient. A similar opinion we find frequently expressed by others.

On the other hand, Dr. Thomas Fearn of Huntsville, Ala., speaking also in the 2d volume of Fenner's Southern Reports of a continued fever, which he calls typhus, the symptoms of which, so far as they are given, correspond very well with those of the fever now known among us as typhoid fever, claims to have obtained much benefit in it from the use of Quinine; nay, even to have arrested its progress; to have at once cut it short in its course. He gave to an adult female three doses of 20 grains each, at intervals of one hour.

For three or four years past typhoid fever has prevailed in Montgomery, so that at no time, perhaps, or at least but for short intervals for that period, has it been entirely absent from the place.... In some cases the disease, as it appears with us, presents somewhat of an acerbative character, more so, it is probable, than it does at the North."

Besides being here presented with *three* distinct varieties of *continued fever*, in some of which Quinine proved curative, and in others entirely useless, not to say injurious, we are also informed that within the last three or four years typhoid fever has made its appearance in Montgomery; and that some of these Montgomery typhoid fever cases present somewhat of an acerbative character, more so, perhaps, than at the North. Now, as characteristic of this latter form of fever, according to our understanding, (to say nothing of the intestinal lesions) one class of observers contend for the red, watery eye, and low, muttering delirium; whilst another, equally as respectable, recognizes no fever as typhoid that is not attended throughout, or a greater portion of it course, with a loose state of the bowels; whilst a third, and no less respecta-

ble and numerous party, look in this respect alone to the exanthematous symptoms.

Although aware that Dr. Boling was not writing a history of typhoid fever, nevertheless it is greatly to be regretted, that, in a matter of so much importance, he should have failed to inform us whether these Montgomery cases were recognized by either of the foregoing standards. To us the importance of this will be more apparent when we state, that shortly after the subsidence of a reported epidemic of this fever in Montgomery, for the purpose of getting something reliable in relation to the matter, we addressed a letter of enquiry to Dr. Silas Ames, one of the most experienced practitioners of that city, asking him to give us the symptoms during *life* by which he recognized this fever. To this letter the Doctor replied in substance, that as regarded the diagnosis of typhoid fever, he depended upon the aggregate of the symptoms in each case; there being, as he believed, no certain or special marks by which it could be recognized—at least that he knew of none.

Again, on page 2d—

"In cases in which the febrile excitement has been running high, the pulse frequent, the skin hot and dry, and the tongue parched and pointed, with such doses of the remedy as I have ventured to give, I have sometimes succeeded in subduing the high excitement, reducing the pulse perhaps from 120 or 130 to 90 or 100, diminishing the heat of the surface, rendering it indeed as also the tongue moist, and the patient's feelings and condition generally altogether more comfortable; and this improved condition I have seen maintained for days under the continuance of the remedy, invariably, however, (with exceptions hereafter to be noticed, where there was reason to believe that a favorable crisis took place independently of the effects of the remedy during the time of its administration) the febrile symptoms have returned on the suspension of the Quinine, and the disease has passed on through its course, apparently unaffected by the temporary interruption in part of its progress, as if though the remedy had exerted its usual controlling influence over the heart and arteries, while continued, it was totally without power or efficacy to neutralize permanently, or effect the elimination of the poison or particular cause of the disease from the system."

With this candid admission of the utter inadequacy of Quinine to cut short what we take to have been nothing more than a *case of ordinary continued fever*, prompts us again to hazard the assertion, that had the excitement been somewhat reduced, the liver made to pour out its bile, and the secretions unlocked generally, before its administration, the result would have been probably quite different. To cure this variety of fever, we must not only *discover what becomes of the bile*, but

find and dislodge it from the system, in the proper manner, and with the proper remedy.

From topographical peculiarities, Montgomery has been, we believe, from its first settlement, infested to a considerable extent with all the grades and varieties of malarial fever. Among these, none perhaps has been more prevalent than *remittent fever;* that this variety, in the person of those long resident in the locality, has, as in other places, for several years been gradually undergoing a change, from the higher to the milder grades, is to some extent doubtless true; and that under these circumstances, in the modified form in some constitutions that it may present, we are not surprised in hearing of its being mistaken by some for pure typhoid fever.

But perhaps the most singular feature contained in the paper under consideration, is now to be noticed; and that is the remarkable *test* of Dr. Boling for determining the presence or absence of miasmatic and typhoid fever, which is as follows (page 4):

"But although I have never myself been able to cut short by the use of Quinine an unquestionable case of typhoid fever; and although it is now, I believe, pretty generally the impression among such physicians of this section of Alabama as I have conversed with on the subject, that it cannot be so arrested, it is more, whatever my own belief, than I would be willing to assert, that it may not be done. I have never myself given the remedy in typhoid fever to the extent that Dr. Fearn did in the cases in which he succeeded with its use, though I have frequently given it in *mild* cases without this effect, in doses, with which I am in the habit daily of arresting with certainty and at once the most *violent* attacks of the various forms of miasmatic fever. Either then my doses have been too small, or the disease now called typhoid fever among us, is different from the cases which were treated with Quinine successfully by Dr. Fearn, and which he calls typhus, notwithstanding the striking resemblance between them; and at all events, in both there is this agreement, that in their symptomology they differ widely from any of our recognized shades of miasmatic fever. Besides the name of typhus, which he gives his cases, Dr. Fearn speaks of the disease as *continued fever.* He does not speak, however, of the post mortem appearances, and notwithstanding the resemblance, I am forced to the belief, that the disease in question was not the one now known among us as typhoid fever. I cannot think it possible that this malady, when established in a recognizable form, can be cut short by Quinine."

Who ever contended that it could be? The mere assertion of a belief, on the part of Dr. Fenner, that Quinine, if properly administered in conjunction with Calomel and Opium, might possibly cut short the disease, has nothing, in our opinion, to do with the belief that it is "one of the protean forms of endemic malarial fever." True, to some extent the history of our malarial fevers are yet to be written; but in

what particulars our *common continued fever* differs from the recognized shades of miasmatic fever, is something, we must confess, that we have yet to learn. Surely Dr. Boling would not contend for a change of cause, on the mere loss of periodicity, and consequent change of type.

Once again and we are done, page 8:

"Every one interested particularly in the subject, who reads the remarks of Dr. Fenner, must regret that he did not give the grounds upon which his conclusion is predicated, that (believing, as he does, that Quinine will cut short typhoid fever) it must be given in the 'forming stage,' 'within the first *two days, or three at farthest*, from the time the fever is perceived.' We are led to infer that it is not based upon his own actual observation. [*How characteristic this of the writer?*] It would seem inconsistent, too, with his belief in the connection or relationship of typhoid fever with the 'protean forms of endemic malarious fever,' [how?] because not even in the very worst forms of these would Dr. Fenner restrict the administration of Quinine to the first three days, but with the utmost confidence of immediate success, would resort to it in most of them at a much later period." [What worse forms?]

In bringing to a close this hasty notice of Dr. Boling's very interesting paper, we cannot but express the hope that he will shortly favor the profession with a better diagnostic test of the presence of typhoid fever, and reason that it is not of miasmatic origin, than his inability to cure it with Quinine. J. C. H.

Wetumpka, Ala.

V.—*A Treatise on the Practice of Medicine.* By Geo. B. Wood, M. D., Professor in the University of Pennsylvania, etc. 3d edition, in 2 vols. Philadelphia, 1852.

This finished production has only been before the profession five years, and has already reached its third edition—undoubtedly the highest encomium that could be passed on the labors of its accomplished author, by any words that we might coin. As an American work, we are proud of it, and can refer to it with feelings not unmingled with national exultation. Except "Watson's Practice of Physic," where, may we not ask, is the work, on the same subject, in the English, German or French language, superior or equal to it? The rapidity with which each successive edition, although large, has been exhausted—scarcely allowing the author time to revise or amend it, answers the foregoing question in a manner which must be as gratifying to the author, as we feel sure it is to his American professional brethren.

Over 80 pages of new matter has been added to this edition, embra-

cing notices of the relapsing fever of Jenner; the leucocythema of Prof. Bennet; the dengue; trichosis, lupus and pellagra. Besides the foregoing, the chapters on inflammation, fatty degeneration, carcinoma, cholera, phthisis, the nature of hemorrhage and Bright's disease, have been meterially modified and made to conform to the wants of the profession and the present advanced state of medicine.

A work of this magnitude, reaching nearly 2000 pages, is too voluminous for any thing like a recapitulation of the views of the author; nor can this be deemed necessary, when the talents, erudition and reputation of Prof. Wood are well known, and we are glad to perceive, so justly appreciated.

The work is finished in beautiful style, and reflects great credit upon the publishers. We hope every American physician who feels any interest in our home literature, will supply himself with a copy of this admirable work; it is invaluable to the general practitioner.

VI.—*Thomæ Sydenham M. D., Opera Omnia.* Edidit Guiliemus Alexander Greenhill, M. D. Editio altera. Londoni, Impensis Societatis Sydenhamianæ, 1851.

Through one of the "Local Secretaries" of this city—Dr. E. D. Fenner, we received the "Opera Omnia" of the great and wise Sydenham from the London Society of the same name. The volume numbers 667 pages, in the original latin, is printed on superior paper, and is bound in handsome style.

To review a work which has been before the profession for more than two centuries, and during that time regarded as a model for accuracy of description and precision of language, would be as superfluous as to attempt to expound the doctrine of the New Testament to the devout followers of the meek and lowly Nazarene. Thomas Sydenham achieved for *modern*, what Hyppocrates did for *ancient*, medicine; hence he has been styled, in consequence, the English Hippocrates. His description of disease is so graphic, and his deductions so judicious and sound, that modern medicine, notwithstanding all its appliances, has really added but little to the practical suggestions of this truly great physician. To show the high estimation with which the writings of Sydenham have been regarded by his successors, we cite the following from one of his numerous annotators, Dr. Wallis:

"Indeed so convinced have later times been of the validity and accuracy of his descriptions, that they are considered as the unrivalled delineations of nature; so universally have they been esteemed for their exactitude and truth, that poets never made freer use of, or stole more from Homer, Pindar or Virgil; satyrists from Juvenal, Persius or Horace; orators from Demosthenes, Quintilian or Cicero; nor dramatists from Shakspeare, than physicians have from Sydenham."

The Sydenham Society of London has given, in the re-publication of the "*Opera Omnia*," at once a guarantee of its great usefulness and wisdom, and placed the entire profession, wherever respected and cultivated, under obligations not likely soon to be liquidated.

VII.—*On the Surgical Treatment of Polypi of the Larynx and Œdema of the Glottis.* By HORACE GREEN, A. M., M. D., President of the Faculty and Professor, etc. etc. New York, 1852.

It is only by well digested and carefully prepared monographs that special diseases, or those peculiar to particular organs or parts, are to be traced out and clearly defined. Hence we approve the plan of the little work before us, because it points out, in a few pages, the symptoms and peculiar nature of certain affections appertaining to definite parts or organs, giving at the same time such statistical information as the science of medicine furnishes on the subject. By this means, all the facts in relation to a particular class of affections are brought out from the great mass of matter scattered through thousands of pages, and condensed within a small space, easy of access, and always available for practical purposes.

Professor Ehrmann of Strasburg, was the first, according to the author, to direct particular attention to Polypi of the Larynx. This Professor has collected twenty-six cases of *laryngeal* Polypi, all of which proved fatal except one, which came under the care of Professor E. himself. On this patient he performed the operation of laryngotomy. We have already stated that the life of the patient was saved.

Professor Green informs us that he has operated twice for laryngeal tumors, and with complete success in both instances. One was for a Polypus attached to the inner surface of the larynx, and the other a "growth of vegetating tumors," which originated in or near the vocal ligaments. He saved his two patients without resorting to the operation of laryngotomy.

Up to the time Professor G. turned his attention to this subject, less than 40 cases had been reported of Laryngeal Polypi; but during the last six years, the author has himself met with four cases, and is persuaded that the disease is much more frequent than is suspected; first, because the diagnosis of these excrescenses is extremely difficult; and second, the symptoms developed by their presence simulate those often observed in asthma, phthisis, œdema of the glottis, thickening of the mucous membrane of the larynx, and ulceration of the vocal ligaments.

Professor Ehrmann, who has given much time to the elucidation of this disease,

says, that "Polypi of the larynx, left to nature, become, sooner or later, the cause of sudden death." From the situation of these growths or excrescenses, being, says Dr. G., generally attached by a pedicle, either to the ventricles of the larynx or to the cordæ vocales, the morbid body may be concealed in the glottis, and remain, even after the death of the patient, the undetected (and unsuspected, Ed.) cause of the fatal termination.

Symptoms. Polypi in the larynx are usually marked by an altered voice, a dry cough, sometimes embarrassment in the respiration. Later in the disease the voice becomes hoarse at intervals; then continuously so, especially in damp weather; finally dyspnœa supervenes, difficult respiration, complete aphonia, livid countenance, cyanosis and asphyxia, when death ends the agony of the patient.

The intelligent reader will readily comprehend the successive symptoms which would attend the development and growth of such a morbid product in the laryngeal passages; and we shall not, therefore, enter into further details on this point. The following is the description furnished by M. Ehrmann, of the morbid growth which he found after death in the larynx of a subject: "A fleshy excrescence was found, lobulated, of the volume of a small nut, fixed, by the aid of quite a large pedicle, to the whole extent of the left inferior ligament of the glottis. This tumor, soft, rounded, quite smooth, obstructed completely the glottic chink. It was of a pale red color; its consistence was similar to that of the fibro-cellular tissue; and all its external tissue, which was slightly nodulated, was continuous with the laryngeal mucous membrane."

Polypi of the larynx are, happily for humanity, a rare affection, and if not promptly met, in its early stages, will destroy the patient by closing up the epiglottic opening, and producing death by asphyxia. These portions of the air passages may become the seat of other morbid and anomalous growths, besides those of Polypi.

Professor Green reports an exceedingly instructive case of Polypus of the larynx, for the relief of which he operated, having obtained a slender double hook, with a long handle, a probe-pointed knife, with a strong handle, and a delicate slender blade, in the following manner: "The patient," says Dr. G., "was seated in a good light, before an open window (the nature of the operation being first described to the intelligent young lady) with her head thrown well back, and held firmly by an assistant in that position. With the flat handle of my knife I depressed the tongue, and when the epiglottis was in view, I glided the double hook over the top of this cartilage, and a little on its laryngeal face. This operation caused the patient to cough; the tumor was again brought into view, being attached by its pedicle to the left ventricle, or the left vocal ligament, and I endeavored to catch it with the hooks, but it was so quickly drawn back into the larynx, that I failed to do it." Finally, after the second or third attempt, Dr. G. tells us he succeeded in catching the hooks into the top of the tumor, when turning quickly the blade of the knife downward, he passed it over the left border of the glottis, and cut from behind forwards, and succeeded in dividing the pedicle near its attachment, and thus brought the entire tumor out of the larynx. All the distressing symptoms under which the patient had labored for years quickly disappeared.

Other cases, with cauliflower excrescences, were treated by the author by cauterization, and successfully.

Dr. Green is entitled to the encouragement of the profession for calling special at-

tention to an operation but little understood, and hitherto much neglected. Want of space restricts us to a short and imperfect notice of this very interesting little monograph; and the consideration of his chapter on œdema of the glottis, although highly instructive, must be postponed to another issue.

The book is full of useful hints and valuable suggestions, and may be purchased of B. M. Norman, 14 Camp street.

VIII.—"CARTWRIGHT ON PROBING THE FALLOPIAN TUBES."

In the late July number of this Journal there appears an article from the pen of Dr. Samuel A. Cartwright, under the above title. Said article purports to be a professional, a scientific reply to an article of mine, published some time ago in the Charleston Medical Journal and Review, wherein I dared to differ with Dr. Cartwright in relation to the practicability of catheterizing the Fallopian Tubes.

In a professional point of view, I cannot condescend to notice Dr. Cartwright's article. The course he has taken can only tend to sink the subject of our difference, and I scorn to join him in thus degrading our mutual calling. As a personal attack on me, his article is rendered impotent by its degraded style, and it excites my pity for, rather than my anger against, my venerable enemy—for such he virtually declares himself.

What a grave error have I hitherto labored under in regard to Dr. Cartwright! How much disappointed am I to find, that the gray hairs which I have hitherto regarded as the honored emblems of his scientific research, are, alas! but so many symbols of his *dotage*. I would as soon have suspected Dr. Cartwright of any thing else as of clothing a purely scientific subject in the vulgar garb of personal abuse of those who might see fit to differ in opinion with him; and I blush for shame to see one who would have himself regarded as a very pillar of our house, thus sapping its foundation, for the *little* purpose of gratifying a fit of anger altogether unwarrantable and inexcusable.

Dr. Cartwright *pretends* not to know who I am. Alas, for the miserable subterfuge!! He dares not insult Truth by denying even a considerable *personal* acquaintance with me. No doubt he regrets our literary acquaintance. But my very pen refuses to lend its ink to a further notice of this most pitiful quibble.

Dr. Cartwright intimates the intention on my part to impugn his veracity. Had I deemed him capable of a falsehood, I should not have deigned to criticise his article. I am sorry to find him so morbidly sensitive on that score. Had my criticism of his article contained any thing which even savored of personality, it would never have appeared in the pages of the Charleston Medical Journal and Review. The gentlemen who conduct that Journal have too high an appreciation of their profession, as well as too exalted a sense of personal honor, to stain their pages with such matter. Dr. Cartwright's insinuation against them is as unjust as it is unmerited. Their offence to him consists simply in this: Their pages are ever open to honorable discussion; they know that the development of truth in science is impossible when only one side of a question is allowed to see the light.

Dr. Cartwright, in a note to his article, makes a charge against me in relation to

a criticism of one of his articles published by me in the November No. 1849, of this Journal. To show how accurately Dr. Cartwright chronicles events, I copy my remarks entire from the Journal, and in addition to the same I do hereby positively deny ever having been asked by the editor of this Journal to allow him *to send to Dr. Cartwright a "proof copy" of my review. I was asked by the editor to allow Dr. Cartwright to reply to my review in the same number of the Journal in which my review was about to appear.*

I labored under the full and unqualified conviction, that Dr. Cartwright had already become acquainted with the contents of my review, and I expressed to the editor my utter surprise that such should be the case, when the paper was as yet but in the proof sheets—that Dr. Cartwright should even know that a review was in press; and I, at first, rejected the proposal of the editor, as unfair and unprecedented.*

After renewed and urgent solicitation on the part of the editor, I finally yielded the point. How generous Dr. Cartwright proved himself, is evinced by his not only neglecting to acknowledge the favor I extended him, but by his indulging in personalities in his reply to my review.

From the New Orleans Med. and Sur. Jour. for Nov. 1849.

"Whilst our article was yet in the proof sheets, we received, through the editor, a request from the author of the pamphlet, that we would allow him to reply to our review in the same number of the Journal. This somewhat surprised us, for, apart from its being (so far as we are aware) altogether unprecedented in the history of journalists, it exhibited a familiarity on the part of the author, with our yet unpublished article, quite unaccountable. However, our motives for reviewing were the best; we were more than willing to give the author every possible chance to defend himself and his theory, and we acceded to the request."

But I have now and forever done with my venerable enemy. Henceforth it shall be my pleasure merely to look on, with my brethren throughout the land, and grow fat laughing at Dr. Cartwright as he goes crawling along the road to fame, seated behind the "Filia nata Jovis," on their mythological steed, with their Hartford convert "following in the footsteps of his illustrious predecessors," and holding a pair of bellows, ready to inflate the animal, in case of accidental suspension of respiration.

D. WARREN BRICKELL, M. D.,

Near Natchez, Miss., July 19, 1852.

* A Word from the Editor.—From the above positive declarations it would appear that the author of the paper and ourselves are at issue with regard to the facts touching the controversy between himself and Dr. Cartwright. As it is more a matter of *memory* than one of *positive* certitude, we are willing that the author should state his recollection of the particulars of that affair. I would simply ask, how could Dr. Cartwright be expected to reply to the author's criticism, without *first* seeing the proof sheets?

We intend no injustice to any one, and as we have published Dr Cartwright's paper, we are willing to render equal justice to Dr. Brickell, by publishing his reply. But at this point the matter *must* drop. No communication from either party, touching this subject, shall be admitted into our Journal.

As Dr. Brickell, in a note to us, "*demands*" the insertion of his rejoinder to Dr. Cartwright, we cheerfully yield to this "demand," and thereby discharge our duty at once to our subscribers and to the author. Our readers must not forget that Dr. B. was the aggressor in this controversy; and *if* he has been worsted in the *rencontre*, the fault certainly does not rest with the editor. We would advise him hereafter to act exclusively on the defensive, for in that case he will be sure to enlist, at least, the sympathies of the profession.

In striving to render equal justice to all, we have unfortunately incurred the displeasure of both parties; placed ourselves "between two fires," "front and rear," and we can neither retreat nor advance.

We embrace this occasion to express our sincere regret for the insinuation thrown out in our last number against our very excellent and able contemporary, the *Charleston Medical Journal and Review*. We endorse nothing that seems to reflect upon the motives or partialities of the accomplished editors of that Review.

Part Fourth.

MISCELLANEOUS MEDICAL INTELLIGENCE.

I.—*Health of Natchez, Miss.*

From the *Annual Report* of the Board of Visitors and the Board of Examiners of the Natchez Institute, kindly furnished us by Dr. C. S. Magoun of that city, we take the following brief extract in regard to the health of the pupils of that place. The rate of mortality as here shown, is perhaps without a parallel in vital statistics. Read it; it is for the year ending July, 1852.

The mortality during the year has been 3 out of 619, or 1 in 206, less than half of one per cent. It is believed that no death has occurred among the children of any of the private schools. The number in these schools in the city has been estimated at 400. If we take the whole number of children at school in the city at (in the Institute 619, and 400 in private schools) say in round numbers 1020, the mortality will be 3 in 1020, or 1 in 340, or less than a third of one per cent.

Although the mortality among our infantile population cannot be considered great, when compared with many other cities; yet, if contrasted with the above, we must confess the balance is decidedly against us; and we are utterly at a loss to find a satisfactory solution of the question. We are unable for want of the necessary data, to institute any thing like an accurate comparison between the per centage of deaths among the children in our public schools and those of Natchez; yet we can but think we should suffer in the comparison. *Ed.*

II.—*Atropine Externally in the treatment of Neuralgia.*

Such is the activity of the vegetable alcali, that great precaution is required in its application to the treatment of disease. Dr. Lusanna reports in the *Gazette Medicale de Lombardie*, some experiments which he was able to institute with this very active agent. He reports two cases of facial neuralgia which were promptly mitigated, and soon definitively cured by the external use of atropine.

It may be used by the endermic and iatraleptic method. The skin being previously removed by a blister, or what is still better, because more speedy,

the ammoniacal pommade of Gorndret, when the atropine is dissolved in a small quantity of alcohol, then mixed with simple ointment and applied to the denuded surface. In this way, M. Lusanna says, we may employ from a demi-grain to a grain in the 24 or 48 hours. M. L. uses the following formula iatraleptically :

℞ Atropine 15 centr.
Alcohol à 36 q. s.
Dissolve. Add Axungia 12 gramm. M.

This ointment he uses in the form of frictions over the part affected every two or three hours, consuming a portion, the size of a pea each time.

III.—*Obstinate Nervous Hiccough.*

In a case of persistent hiccough, after every variety of treatment had failed, Dr. Marage hit upon the following formula, which promptly removed the affection :

℞ Oil of sweet almonds, 60 grms.
Syrup of Diascordium, 30 "
" Peppermint, 12 "
Chloroform gutt. xx M.

Of this give a coffee spoonful every three hours.

(*Gazette Medicale de Paris.*)

We have seen small doses of the spirits of turpentine, say 10 to 15 drops, given every one or two hours, on a piece of white sugar, put a stop to prolonged and violent hiccough. *Ed.*

IV.—*Colchicum in Hysteria and Chorea.*

In both these nervous affections the tincture of colchicum has been tried with complete success. Thirty drops of the tincture may be given every six or eight hours until the convulsions cease. (*Ib.*)

V.—*How Tubercles are formed in the Lungs.*

In a great work on Pathology, Prof. Kostlin, of Stuttgart, (as we learn from the *Gazette Medicale de Paris*) draws the following conclusions on the nature and cause of pulmonary tubercles :

1st. Tubercle results from an exudation of a peculiar nature ; its deposit is due, sometimes to local causes, and sometimes to a morbid state of the blood. The vessels which furnish the materials of this exudation are often in a state of hyperæmia or stasis, but this is not constant.

2d. A short time after this exudation, the substance of the tubercle becomes solid. In its interior are developed nucleated elements united to each other by an elementary amorphous matter—beyond this inferior degree of organization, tubercle never advances.

3d. Tubercle is ordinarily deposited between the tissue of the parenchyma —but rarely on the surface of the lungs. The color of tubercle is sometimes greyish and transparent, sometimes yellowish and opaque, but their composition is nearly the same.

4th. Softening is not necessarily a metamorphosis of tubercular matter; it is determined by a serous fluid, which is received from the surrounding vessels.

5th. Softening of tubercle is not accompanied by any tendency to a higher organization; hence no purulent corpuscles are formed: on the contrary, the organization which existed is destroyed. Softened tubercle and pus—tubercular softening and a purulent abscess, are things essentially different.

6th. The cure of chronic tubercular concretions is effected by the dissolution of the elements in the amorphous mass, which becomes more and more contracted. Yellow tubercle can only be cured either by partial or total softening. Here a cure is impossible because the hyperæmic vessels which surround the softened tubercle, deposit, instead of new tubercular matter, a more organizable blastema. This change necessarily limits the work of destruction, and announces a diminution or cessation of the tubercular deposition.

VI.—*Is the Physician authorized to provoke premature artificial Abortion to save the Mother?*

A long discussion, in which some of the most distinguished medical savans have taken a part, has been for some time going on before the *Academie de Medecine*, on the subject of artificial abortion. This controversy, for it has already reached that point, grew out of a report entitled, "*De l'accouchement prématuré artificiel.*" presented to the Academy of Medicine on the 10th February, 1852, by M. Cazeaux.

The following, as we think, just conclusion, closes the report of M. C. on the subject:

1st. It is in consequence of a false interpretation that the laws, both human and divine, relative to abortion, have been applied to abortion practised with a conservative object.

2d. Let the laws punish crime; but they cannot reach, without injustice, an act accomplished with the purest intentions.

3d. Placed in the desperate alternative of choosing between the life of her infant and her own, the female has, by the laws of nature, the right to decide against her offspring.

4th. In this case the Physician may, and should sacrifice the infant, for the safety of the mother.

5th. Provoked abortion being much less serious for the mother than embryotomy, performed at the full period of gestation, the accoucheur may and ought to give it the preference.

6th. Deformities, in which the pelvis may be found less than six centimetres and a half in its shortest diameter—hemorrhages which nothing can check —tumors either in the hard or soft parts, which cannot be removed—are the only indications which can call for provoked abortion.

7th. The physician should never decide upon a step of this serious nature without the previous advice of several enlightened medical men.

(*Jour. des Connais. Med. Chir., Avril*, 1852.)

VII.—*A new mode of administering Cod Liver Oil.*

The April number for 1852 of the *Journal des Connaissances Medico-Chirurg.*, copies from an Italian periodical, *Il Raccoglitore Medico*, a very simple and economical means of administering cod liver oil. The oil is made to combine with powdered starch or arrowroot, to which is added a small opiate. In the first stage of treatment the patient is made to take six boluses every morning and as many in the evening. After a certain time the boluses may be increased, because the patient is gradually habituated to swallowing them. The author of the foregoing suggestion, Dr. Benedetti, has found that the cod liver oil is much more efficacious when given in this than any other form. He is disposed to attribute the virtues of the oil rather to its eminently nutritive properties than to the iodine which it contains. Hence, the addition of powdered fecula must enhance its restorative properties. Given in this combination, Dr. B. has found the oil much more acceptable to the stomach, and, as already mentioned, serviceable to the patient.

VIII.—*Analysis of Jackson County Springs, at Lynchburg, Miss.*

BY J. LAWRENCE SMITH, M. D.

Professor of Chemistry University of Louisiana.

These Springs are situated in the State of Mississippi, about five miles from the town of Biloxi, and only half a mile from the eastern shore of Biloxi Bay. The coast near these springs rises several feet above the surrounding country; whilst the plain, as it recedes from the sea coast, is beautifully undulating, and presents a charming and picturesque view to the beholder. The situation of these Springs, being nearly equi-distant from both New Orleans and Mobile, must tend greatly to enhance them as a summer retreat for the invalid and for those in search of pleasure and recreation.

We give the following analysis of these waters, as ascertained by Professor Lawrence Smith:

Water colorless, even when kept for a length of time in bottles, provided the bottles be well corked; so soon as opened, the water begins to blacken, from a deposit of sulphuret of iron; the odor of the water is that of sulphuretted hydrogen, which the water contains in considerable quantity; the taste, that known to belong to this class of waters. Specific gravity, 1,00082. Gaseous contents in one gallon:

Carbonic Acid,	4,632 grains.
Sulphuretted Hydrogen,	0,481 "

Solid contents in one gallon:

Chloride of Sodium,	47,770 grains.
do. of Calcium,	3,882 "
do. of Magnesium,	4,989 "
Protoxide of Iron,	4,712 "

Iodine, a strong trace.
Organic matter, a trace.
Chloride of Potassium, a trace.
Alumina, a trace.

The iron is doubtless in combination with both the sulphuretted and carbonic acid gases, the excess of carbonic acid holding both these combinations in solution.

The medicinal virtue of these waters is to be looked for more particularly in the oxide of iron and sulphuretted hydrogen, both of which exists in notable quantities; and it is therefore apparent that many chronic diseases might be cured, or receive important alleviation from these waters; as a bath, it could be applied with much advantage.

From the foregoing analysis, the intelligent reader will at once appreciate the value of these waters, and be enabled to predict for them a high reputation. It has been remarked, that for those diseases peculiar to, or endemic in a country, there are always indigenous to that climate, whether discovered or not, a remedy, which, when properly applied, proves a certain and speedy cure for such diseases; applying this rule then to the present case, may we not venture the suggestion, that the virtues of these waters are such as are precisely adapted to the removal of those morbid conditions, nervous disorders and enfeebled states of the system, so often witnessed in the South, and so difficult to relieve by the usual method of treatment?

The large proportion of iron held in solution by the carbonic acid gas, contained in this water, must make it at once acceptable to the stomach and invigorative to the general system. In addition to the martial preparations mentioned above, the analysis by Dr. Smith reveals a large per cent of the chloride of sodium—a salt of the last necessity to the wants of the economy, and without which health and strength would perhaps be unattainable.

With the chemical composition of these waters before us, we can easily select such cases as would seem most likely to be benefitted by the free use of these waters. In the meantime, we shall await with some impatience further developments in their medicinal virtues. To our friend, Dr. Austin of this city, we are indebted for the foregoing information in relation to these Springs.

P. S. Several cases of obstinate chronic diarrhœa and scrofula have been recently entirely cured by the use of these waters. *Ed.*

IX.—*Kreosote in the treatment of Scarlet Fever.*

The August number for 1852 of the *Philadelphia Medical and Surgical Journal* contains a very instructive paper by Dr. T. E. Waller, on the use of Creosote in the malignant form of Scarlet Fever. After reporting several cases, for the relief of which other remedies had failed, and which were promptly cured by Creosote, he concludes as follows:

Open the bowels every other day with castor oil, or some mild aperient; apply cold or cool water and lard alternately to the whole body frequently; warm mustard bath, if necessary, and tepid water with vinegar; solution of nitrate of silver, in the first stage, to the throat, once a day, and in the suppurative stage, three drops of Creosote in twenty-four hours, until the discharge abates; wash and gargle the throat, etc., with Creosote water, six drops to the ounce, three or four times a day; and for the hoarseness and dry state of the larynx, before or during convalescence, give from five to ten drops of balsam copaiba on a little sugar, three times a day. After the patient gets up, great care is necessary to prevent taking cold, and the diet should be light for at least two weeks in most cases. The Pulv. Jalap Comp. will generally keep down or remove dropsical effusion or anasarca, if that state supervene.

X.—*Accumulations in the Rectum mistaken for the Head of a Fœtus.*

The July number of the New Hampshire Journal of Medicine brings to us, (says the Transylvania Medical Journal) an amusing article under the caption of "A small Mistake," from Dr. Buzzell. We cannot refrain from presenting to our readers the following extract, exemplifying the assertion with which the Doctor set out, "that it is the easiest thing in the world for the best of people to be mistaken, physicians not excepted." After detailing with some minuteness the previous indisposition of the patient, who appears to have been an unmarried female, about 20 years of age, the Doctor proceeds:

In the latter part of April she was taken with pains in the lower part of the bowels, which resembled labor pains, and as she was so stupid herself as to be unable to inform her friends what was her real situation, an elderly lady in the neighborhood, who was often called upon as a forerunner to the Doctor, and who would officiate in an emergency, was sent for. She decided at once that the girl was in labor. She made an examination, felt "the child's head low down," and the "waters had broke," etc. She advised that a physician be sent for forthwith. A young physician was sent for, who, being informed on his arrival that she had been in "great pain by spells," and that the "waters had broke," the "child's head had been felt," etc., made a slight examination, and not having a very good opportunity for examination, as the patient was very restless, he concluded that the old lady was right, and that the girl was surely in travail. Her pains, however, seemed to abate after the arrival of the Doctor, and that was not regarded as any thing very strange, for a young woman having a young physician present.

The waters came away periodically about once in six or eight hours. This rather perplexed the physician, and after spending the night waiting for the

"pains to come on," the physician thought, as it seemed to be rather a peculiar case, that it might be advisable to have counsel. I was sent for; but as the messenger was informed, when he arrived in the village, that I was not at home, another physician was sent for, who visited the patient. Upon an examination of the patient, this consulting physician pronounced it to be a case of *super fœtation*; and after explaining the case to the family and attending physician, he proposed to send for a surgeon, in order to make an "incision in the patient's side, and extract the fœtus therefrom." He advised also that a justice of the peace should be sent for to administer the necessary oath on such occasions, or in other words, "to swear the baby." The justice came in due time, and as suspicion naturally rested upon the man at whose house the patient had lived, as before stated, she was made to swear the baby on this man —though the justice was not disposed, from the vagueness or indefiniteness of her answers to his questions, to proceed to issue a warrant for the arrest of the father of the *child.*

The case had now assumed a very serious aspect. The character of the patient, and of a hitherto respectable man, was "down," and the news flew on the wings of the wind, as might be expected in this newsy world. I was sent for the next day. The messenger related to me the case as well as he could, and requested me to take my instruments with me, and prepare for the *operation.* I went to the scene of action, however, under the impression that there was a joke about it. On making an examination of the patient, I found that instead of its being a case of super fœtation, it was nothing but a large accumulation of fæces in the rectum, so large that it occupied nearly the whole of the inferior portion of the pelvic cavity, merging forward hard on the pubic bones and against the bladder. This explains the reason why the old lady supposed that the "waters had broke." The urine escaped, of course, at distant periods, and then "with a rush." I directed the old lady, who had the priority in the call, to oil her fingers and cautiously to deliver the patient of her *burden.* I advised the father to stay process legally, until the child was born and named, and concluded myself that I should consider it a hard case to be the alleged father of *such a child.*

The patient is, I believe, as "comfortable as could be expected" under the circumstances. I advised that her bowels might be kept pervious, and I believe that she has not had occasion to "send out" again. It would seem that but a small share of common sense would have saved any man from such a blunder; but as the physician who made the mistake claims to be a very scientific man, I am forced to say that the saying quoted in the commencement of this article is emphatically true. Such a case should admonish young practitioners to be cautious and thorough in their examinations, and not to let modesty prevent them from discriminating between a large accumulation of fæces in the rectum and a child's head.

XI.—*Treatment of Varicocele by Gutta Percha dissolved in Chloroform.*

BY DR. H. G. CAREY.

After having used gutta percha considerably for other purposes, a knowledge of its properties forcibly suggested it in solution, as admirably fitted to fulfil the desired objects sought in the treatment of varicocele. In order to apply it, the patient is placed upon his back, and by means of cold the scrotum is corrugated until it is drawn firmly over the root of the penis, compressing the testes firmly in the upper portion of the inguinal pouches; then, by means of a cam-

el's hair pencil, after the hair has been removed, apply the solution freely over the site of the scrotum, allowing it to extend on all sides some distance by a thin attachment; but over the scrotum proper lay on a succession of coats, until a thickness of a line uniform throughout is obtained, which will be sufficiently strong to form an artificial pouch of the nature and character desired. This thickness will be so yielding and pliable as not to afford the wearer any considerable inconvenience. Soon after the solution is applied to this sensitive part, the patient will complain bitterly of the burning sensation experienced, depending upon the presence of the chloroform; but this temporary inconvenience will soon pass off. The constitutional indications, if there be any, must not, of course, be neglected.

(*Monthly Jour. Med. Science, March*, 1852.)

XII.—*Diluted Hydro-cyanic Acid as a topical application in certain affections of the Eye.*

The above application is highly recommended by Mr. Soliman in the *Medical Times and Gazette*, in certain forms of strumous opthalmia—often so perplexing to the surgeon. He uses one part of Scheele's Prussic Acid, diluted with two parts of distilled water. It may be used with marked advantage, when the acute stage, says Mr. S., has been subdued by appropriate treatment or in cases where the symptoms of irritation are greater than those of vascular excitement. The lingering chronic stage, with the liability to relapse, is averted; dimness of vision, intolerance of light, and profuse lachrymation quickly yield to its calmative powers.

[Condensed from Braithwaite's Retrospect for 1852, by the Editor of N. O. Med. and Sur. Journal.]

XIII.—*On the treatment of Typhus and Typhoid Fevers.*

BY DR. TODD.

One important feature of fever, whether it be typhus or typhoid, whether diarrhœa be present or not, is *depression*. The disease is adynamic, and great attention must therefore be paid to supplying the patient with a proper nutriment. The basis of his diet should be proteinaceous matters, in such a state that the stomach shall have little or nothing to do to bring them to a condition fit for absorption. In the animal broths, well made, and in milk, you have food which answers to this description. The former, on the whole, are probably the best. Milk is less easily digested, and does not always harmonize with other matters necessary to be given. Farinaceous matters may be introduced also in small quantities. A great secret of success in administering support to patients under these circumstances is this—to give it very frequently in small quantities—quantities so small, that the whole or greater part of one supply may be absorbed before the next supply is brought; and also not to give a va-

riety of food. Keep to milk and beef-tea, or other broth, or to broth and farinaceous matter.

In the great majority of cases you must, I think, give stimulants, and give them early. They will often fail because begun too late. The best stimulants are brandy and port wine, with either of which chloric ether will go as well as a medicinal stimulant; any one of the three will often suffice alone. Port wine and brandy ought not to be given together, simply because in general the stomach does not digest well two kinds of stimulants. The same rule as to frequent administration, and in small quantities, which I have already laid down for food, holds with equal if not greater force in giving stimulants.

In my opinion, the question in the treatment of fever is, not whether you shall give stimulants, but how much you shall give. In many you may give as much as half an ounce every half hour, or even an ounce of brandy, with advantage; but this is in bad cases. On this point you must be guided by the rapidity and compressibility of the pulse, and by the intensity of the heart's action. An important character of the pulse is found in the manner in which it strikes the finger; if vacillating, it is a decided indication for the use of stimulants. The strength of the heart's action, especially of the second sound, is also a good indication. If either sound be weak, but especially the second, you need not fear to give stimulants freely. An impulsive character of the heart's action with a feeble sound, also denotes the use of stimulants. Under such a plan of treatment, in which nutritious fluids and stimulants are given freely and from an early period, we find our mortality in fever to be small; we very seldom lose a case of fever. I do not allow myself to be deterred from giving stimulants by the state of the bowels; I know that many have a fear that much alcoholic stimulants irritates the bowels. If the alcohol be given in small quantities each time, it cannot irritate it by direct contact, because it is absorbed before it reaches the intestines. Alcoholic stimulants, if not given too much at a time, are digested in the stomach, and the alcohol gets immediately absorbed and carried into the circulation. If it does harm, it does so from being in the blood; yet I must confess I have never seen satisfactory evidence of this.

We must also pay close attention to the bowels. If diarrhœa be present, it must be checked by those astringents which contain tannin; as the infusion or tincture of rhatany, catechu, of matico, of logwood, or you may give enemata with small quantities of laudanum. I find chalk often fails, and moreover it is liable to this objection, that as it does not dissolve, its particles may add to the irritation of the blood, by sticking in the ulcerated or inflamed patches. Counter-irritation over the abdomen by mustard, turpentine or blister, is also frequently of great use. If there is hemorrhage, you may give small doses of turpentine, five minims repeated every three or four hours, and in such cases, turpentine must be used as an external counter-irritant to the belly.

Another feature in these cases is, the frequent occurrence of bronchitis or bronchial congestion, indicated by rhonchus and crepitation. The bronchial congestion and diarrhœa are frequently the most difficult symptoms we have to deal with in those cases in which we find maculæ. The bronchitis may be relieved by the free application of turpentine stupes or blisters to different parts of the chest, at the same time or in succession; and though in such cases we must carefully watch the effects of our stimulants, we must not think of lowering our patient by bleeding, or by the application of any antiphlogistic remedies. (*Medical Gazette*, 1851.)

XIV.—*To the Medical Profession of the Southern and South-western States.*

Gentlemen—At the last annual meeting of the American Medical Association, I was continued as chairman of a committee, to report at its next session, on the prevalence of *Idiopathic* Tetanus—(not endemic, as I was erroneously notified by my first appointment). Permit me therefore to solicit your assistance, to the extent of your information, either from personal experience or enquiry, embracing the immediate circuit of your professional supervision. Your attention to the following queries and answers, seriatim, forwarded by mail to my address, on or before the 1st day of January, 1853, will not only serve the special object of the Association, but particularly oblige,

Very respectfully, your ob't.,

A. LOPEZ, M. D.

1st. Are there any physical causes, in or about your locality, productive of Idiopathic Tetanus ?

2d. Have changes by clearing of lands, change of culture, or any other circumstances, been the cause of such disease ?

3d. Has Tetanus been of frequent occurrence, and if so, does it hold an analogous or independent origin of malarious diseases ?

4th. Does it follow the laws which govern climatic endemics, in sufficient number, and simultaneous prevalence, to warrant the belief of its identical origin ?

5th. Have meteorological variations governed the production and character of the disease ?

6th. The average number of deaths from Idiopathic Tetanus ?

7th. Have adults or children been most liable to its attack ?

8th. What sex ?

9th. Proportion of whites to negroes ?

10th. Duration of disease previous to fatality ?

11th. Interval between cause and development ?

12th. Does *Trismus Nascentium* ever observe an Idiopathic or symptomatic character ?

13th. Are negro or white children most liable to it ?

14th. Your belief as to its origin ?

15th. Proportion of deaths to cures ?

16th. Have you found any form of treatment more successful than another, in either Idiopathic Tetanus or Trismus Nascentium ?

The New-Orleans Medical and Surgical Journal.

Vol. IX.] NEW-ORLEANS, SEPTEMBER 1, 1852. [No. 2.

HEALTH, MORTALITY, &c.

We predicted, in some editorial remarks under this head in our last number, that Cholera, which was then prevailing to a considerable extent in our city, would disappear in a few weeks. We are happy to state that that prediction has been fulfilled almost to the letter, as will appear from the table which will follow these observations. We were enabled to anticipate the course of this disease in our midst, because we have had frequent opportunities to note its steady, uniform and regular increase, after the few first cases, until it attained its acmé—which occupied from four to six weeks—at this point, that is, the maximum of deaths, it almost *invariably* stands about two weeks, when it gradually and uniformly declines, until the deaths weekly number only some three or four.

When the diease is revived and deaths begin to multiply among our population, no atmospheric vicissitudes, however sudden—no thermometrical, electrical or barometrical change, seems to exercise the slightest influence on the course of the disease—it marches onward, claiming its victims here and there, despite of sunshine and shower—heat or cold—the precautions of the timid and the skill of the scientific. So in like manner, when the force of the morbid principle is becoming exhausted, the disease as steadily declines, regardless of climatic influences and supposed favoring causes. This we have repeatedly witnessed, and so uniform is the Cholera in marching through these three stadia, that we can speak with something like mathematical certainty of its habitudes in this respect.

We subjoin the mortality for the *nine* weeks, ending Aug. 14th, 1852, in New Orleans, as follows:

DEATHS IN THE CITY OF NEW ORLEANS,

For the 9 weeks ending Aug. 14th, 1852.

1852	*Cholera.*	*Fevers.*	*Total.*
June 19th,	73	11	224
" 26th,	74	26	251
July 3d,	40	19	184
" 10th,	29	26	184
" 17th,	28	15	149
" 24th,	37	23	150
" 31st,	19	35	185
Aug. 7th,	9	26	133
" 14th,	5	16	126
Total,	314	197	1586

Of which number died under 10 years of age 564, and 220 colored—free and slaves.

For the nine weeks, (see foregoing table) ending August 14th, the total deaths were 1586, against 1855,—Cholera, 314, against 552; and Fevers, 197, against 119, for the *previous* nine weeks, which closed June 12th—(vide July No., 1852).

Both the totals and the deaths from Cholera have declined, as shown by the preceding table, since our July issue; whilst the fevers have gradually increased—an event that might be expected as the summer waned and autumn approached. During the week ending August 7th, two deaths were reported as having been caused by Yellow Fever; but in the report of the succeeding week we find none; hence some doubts have been entertained among medical men as to the reality of the disease in the two instances above mentioned; but the authority from which these reports emanated is too respectable and competent, to justify any doubt as to the correctness of the diagnosis. Indeed, during the current week (August 18th), we have heard of more than one case of black vomit—a symptom universally admitted here as characteristic of the disease at *this season* of the year. Up to date, not a case, bearing the slightest resemblance to this disease, has been admitted into the Charity Hospital—a fact which induces many to hope and believe that our city will escape any thing like an epidemic of Yellow Fever this season.

Whatever the future may bring forth, certain we are the city is at present free of any thing like epidemic or endemic disease,—on every hand—in every section of the city—from the extreme limits of one district to the outer verge of the other, universal health prevails, and the prospects for the sons of Æsculapius are any thing but flattering.

"THE MEDICAL RECORDER,"

Published bi-monthly by the Memphis Medical Society, at one dollar per annum.

We have received this new medical periodical, which makes its appearance under the fostering care of the "Memphis Medical Society." Two numbers have already come to hand, and although too small to contain much matter, yet it is quite neat in appearance, and reports several interesting cases of practical value. We trust the Memphis Medical Society, which contains so much talent, will soon make the "Medical Recorder" both useful to, and popular with, the profession.

RUPTURE OF SPLEEN, FOLLOWED BY AN ABSCESS IN THAT ORGAN---ULCERATIVE PERFORATION OF THE WALLS OF THE STOMACH, THROUGH WHICH THE ABSCESS DISCHARGED ITS CONTENTS.

About the middle of June, 1852, an Irishman, aged about 35 years, entered ward 12 of the New Orleans Charity Hospital, under our care. When he entered, he presented the following symptoms: Countenance pale, face œdematous; pulse over one hundred, small, quick and jerking; skin hot and dry; tongue pale and coated; great thirst.

He represented that about ten days previously, whilst engaged on a steam boat running on the Mississippi river, he accidentally fell from a considerable height, striking his left side against a piece of timber. For several hours he suffered great pain in the region of the spleen, which pain, however, in a measure subsided after a time, and he was enabled to walk about the boat until a few days before his application to the Hospital, when the left side began to enlarge and to pain him.

On inspection, we found the left hypochondriac region quite protuberant, causing considerable deformity, and greatly increasing the circumference of the lower part of the chest. The false ribs of that side were greatly elevated, and pressure beneath them caused the patient great suffering. The lower part of the thorax, nearly as high up as the nipple, was found quite dull on percussion; the surface about the parts presented no discoloration, no mark of contusion, no trace of ecchymosis.

We diagnosed a *possible rupture of the central or pulpy portion of the spleen, succeeded by inflammation of that organ.* The surface was sponged to reduce the heat of skin; a large blister was applied over the region of the spleen, and small doses of calomel and opium were ordered. The blister reduced the swelling more than one half, diminished the pain, and we began in the course of a few days, to anticipate a favorable result; but at our morning visit, at this time, we found the pain had returned, with an increase of swelling; patient restless; pulse quick, small and feeble. A second blister was now ordered, the first having healed under the use of mercurial ointment. The second blister drew well, and gave but partial relief. In a few days from this time the patient began to pass, *per anum*, a dark, rather fœtid fluid, resembling grumous blood, or rather stewed prunes; this continued for two or three days, at intervals, in spite of large doses of opium and acetate of lead, elix. vit., etc. The pulse became extremely feeble and rapid, and the surface of a pale hue; to this was joined great restlessness, and despair on the part of the patient.

At this stage of the case the stomach became uneasy and nauseated; finally vomiting took place, when large quantities of fluid, similar to that already described as having passed per anum, were thrown up. Morphine, brandy, soup and other roborants were freely given; but the patient sank, and expired quite exhausted with nausea and vomiting.

Post-mortem after death.—Mr. Clark, a very intelligent resident student of the Hospital, made the dissection in our presence. Nothing unusual was discovered until we reached the spleen, which was large, softened and of the usual color. On attempting to remove this organ, it was found firmly attached to the greater curvature of the stomach. Continuing the dissection, we found the spleen adherent, by compact, dense, cellular tissue, to the upper end of the greater curvature, particularly about three or four inches below the cardiac orifice of this organ; in the centre of this point of adhesion, a communication had been established, through an opening caused by ulcerative absorption, or rather inflammation, into the walls of the stomach; it measured at least one inch and a half in diameter. Pushing our investigation a little farther, it was ascertained that the centre of the spleen was the seat of a former abscess, which had discharged a large part of its contents through the opening already described in the walls of the stomach. The abscesses—the one longitudinal, the other transverse, crossing each other thus, +, were well defined, and contained but a small quantity of difluent, dark, fœtid matter. To sum up in a few words all the material facts: The man fell—the spleen was either contused, or the central, pulpy portion was lacerated by the fall,—vessels gave way,—blood was poured out, but being in the central portion of the organ, it could not escape. Too much to be taken up by the absorbents, it was, in the course of time, converted into a traumatic abscess. Nature, who is ever conservative in her efforts formed adhesions between the spleen and stomach, at the most convenient point of the latter; the walls of the stomach gave way before the ulcerative inflammation, produced by the pressure of the now progressive matter; through this opening the contents of the splenic abscess entered the stomach; the first was carried off by the bowels, but towards the latter part of the patient's life, the matter became so offensive, that it was rejected by vomiting as soon as it entered the cavity of this organ.

After death, we found a large quantity of dark, broken down pus in the stomach—part of the contents of the splenic abscess.

POST MORTEM OF A CASE OF COUP DE SOLEIL.

On the 16th of August, 1852, a man, a little over the medium height, about 25 to 30 years of age, of fair muscular developments, died of Coup de Soleil, a few hours after admission into the wards of the Charity Hospital. The usual treatment, such as revulsives to the extremities, cold lotions to the head, &c., failed to relieve him, and he soon expired.

The symptoms were such as usually attend these cases in the last moments of existence. We may remark that he seemed conscious, ulthough unable to articulate. He died late in the evening, and the post mortem was made the succeeding morning by Messrs. Newsom and Waddell, resident students of the Hospital, and the following morbid phenomena were noted by us at the time.

The entire surface of the body was pale; no lividity or discoloration could be detected. The expression of the face was calm, natural and rather composed —items that should be invariably noted in cases of sudden death, brought on by violent and overwhelming attacks.

The contents of the Cranium.—The scalp was not unusually vascular, except in the occipital region, where position had produced its usual effects. The *dura mater* was rather dry, transparent, and free from any abnormal vascularity. The arachnoid was highly injected, and the pia mater presented a beautiful mesh-work of injected blood vessels; and this injection was continued into all the sinuosities, sulci and convolutions of the cerebrum and cerebellum. The cineritious structure, when divided, presented numerous bloody points, caused by the escape of fluid from the divided vessels. The ventricles contained a small quantity of serous fluid; and when the medulla oblongata was divided, as much as two or three ounces of colored serum escaped. In a word, the entire brain, with its proximate membranes, were highly congested or injected.

Thorax, Heart and Lungs.—On opening the chest, the pericardium was found distended with fluid; and when this sac was punctured, there escaped several ounces—as much as six or eight—of bloody serosity. The right cavities of the heart contained very dark, but not very firm coagula, commingled with a few yellowish fibrinous concretions. The left lung, especially the lower half, was loaded with dark blood, the air cells being completely blocked up, presenting the appearance that organ does when in the first stage of approaching hepatization; when divided and pressed between the fingers, a dark, grumous looking fluid, not unlike the bloody sputa in certain stages of pneumonia, escaped; but partial crepitation was discovered in any other than the upper portion of the left lung under pressure. The same ramarks are applicable to the right lung. A finer specimen of highly congested lungs is seldom to be met with, even in the Charity Hospital.

The Liver.—This organ appeared normal, both in color and size; yet it seemed more friable in texture than was consistent with healthy tissue. The examination ceased at this point.

Observation.—Upon what part of the organism shall we fix the first link of that chain of morbid phenomena, which determines the ensemble of symptoms characterizing an attack of *coup de soleil*? Undoubtedly in the nervous centres, and chiefly in the *encephalon*, which, from insolation, conjoined with muscular exertion, experiences a sort of paralysis of its dynamic force; in consequence of which, the circulation in the lungs and brain becomes deranged,—both of these organs (constituting, as they do, two of the three legs of the tripod of life,) the air cells become blocked up with black blood, and this state of the lungs throws upon the brain, already struggling to unload its vascular structures, additional embarrassments, from which, in the majority of cases, the best directed efforts of the physician cannot extricate the unhappy patient. In some cases, a spurious sort of reaction takes place; the pulse rises and becomes

full; the skin burning hot, although often moist about the head and chest; whilst the feet and hands remain cool. Others again manifest no signs of reaction; the surface remains cool and pale; the nervous centres, but chiefly the brain, continue, so to speak, paralyzed, from the intense action of the morbid cause.

In the first case bleeding would seem to be required; but this practice must be adopted with the greatest cautiou; local depletion *alone* can be relied on, in such instances; and in many cases whilst cups are being applied with the one hand, we must administer brandy and carbonate of ammonia with the other. In the administration of fluids, in cases of sun-stroke, we must be cautious, lest, in consequence of the partial or total paralysis of the muscles of deglutition, we strangle the patient, as we have witnessed more than once in practice. Active emetics, such as the sulphate of zinc and powdered mustard, in the early periods of the attacks, particularly when preceded by a hearty meal, may assist powerfully by unloading the stomach, in hastening reaction of the nervous centres, and thereby restore the balance of the circulation. In *coup de soleil*, the *par vagum*, in common with the nervous centre from which it springs, participates in the loss of function, and fails to transmit to the lungs, stomach, &c., that amount of nervous influence requisite for respiration and digestion. *Vide Wilson Philip on the Vital Functions.*

In cases attended with a full pulse, cool skin and general adynamia, revulsives, general and local, stimulants internally and warmth externally, are the means to be relied upon.

We had much to say on this subject, but our space is exhausted, and we must close, trusting that some of our correspondents may turn their attention to this interesting subject.

OUR MEDICAL SCHOOLS.

The season is rapidly approaching when the medical schools scattered over our great and prosperous country, will throw open their doors to receive hundreds, yea thousands of medical students within their walls. Circulars, "announcements," &c., are pouring in upon us from nearly every state in the confederacy, each claiming peculiar advantages, either on the score of locality, or the reputation of the professors; and not a few found the claims of their schools upon the cheap rate of board, and the yet cheaper price at which the tickets of the Professors may be obtained. From such a number of schools—all striving to swell their list of matriculants, the student finds it no easy task to make a proper selection—he hesitates—he enquires—again looks at the board bill, the Professors' fees, and lastly, the expenditure for a diploma. Not unfrequently this latter item determines his course—either to the North, East, West or South—any where to economise—to be made a doctor on the cheapest terms.

Our advice (which is gratuitous) to students is this : Let those who are of the North and East, and especially those of them who intend to practice their profession in those latitudes, remain at home, attend the lectures of their own schools, which are numerous, well conducted, and many of them richly endowed, and they will acquire all the elements of a sound medical education, and thus be qualified to enter upon the duties of their profession. Those who are reared, or who expect to practice in the South or West, should patronize their own excellent schools—of which there are many—where they can acquire not only the fundamental principles of their profession, but will likewise be made acquainted with the diseases peculiar to the South, and the remedies adapted to their cure; and obtain that kind of knowledge which will enable them to grapple successfully with our peculiar forms of disease. Students of medicine must remember, that schools alone cannot make good Physicians, although we grant they can manufacture Doctors without limit; upon his own efforts, mainly, the student must rely for that knowledge and experience which can alone guide him safely through the devious paths of a professional life—upon his almost unaided exertions he must build his hopes of future eminence and high renown. Neither the reputation of distinguished Professors, nor the fair fame of our *Alma Mater*, can supply the want of information in times of trial, doubt and danger; upon all these he may call in vain—they will but mock his fears, and justify his doubts, if he has failed to treasure up the requisite knowledge, and to apply his mind honestly and earnestly to the study of his profession, after he shall have finished his collegiate course.

Young gentlemen, we repeat, patronize your own schools, and never venture to travel a thousand or fifteen hundred miles to find a medical school, when the same means of acquiring medical knowledge are within a few miles of "sweet home."

ON THE USE OF ARSENIC IN HOOPING-COUGH.

BY A. R. NYE.
Assistant Surgeon N. O. Charity Hospital.

In the 14th No. of Ranking's Half Yearly Abstract, will be found an article by Dr. McKenzie of London, on the "Nature and treatment of Hay-Fever." In this article Arsenic is not only highly recommended in hay-fever asthma, chronic catarrh and opthalmia, but its use in hooping-cough is thus spoken of: "For upwards of three years I have given Arsenic in hooping-cough with the most salutary effect. In general, it has put a stop to the disease in about a fortnight, and it has never failed to moderate it in a few days."

If hooping-cough (as some maintain) depends upon a morbid state of the nerves, of the respiratory mucous membrane, characterized by peculiar irritability of that membrane—then Arsenic is particularly indicated, from its well known efficacy in analogous cutaneous diseases. Its utility in correcting and

controlling irregular nervous action, and the conditions dependent upon it, is fully established in cases of lepra, psoriasis, and other skin diseases. However, it is not my intention to support any favorite theory, but merely to give a history of two cases of hooping cough, which have come under my own observation. In both cases, I have no doubt, that the duration of the disease was much abridged by the use of Arsenic. For it will be seen that the first case, which was attended to early, lasted only a little over three weeks ; and the second, which was seen much later, and was also a very severe case, lasted only a little over six weeks. The usual duration is from six to ten weeks. Physicians generally believe that it will run a definite course, and are merely contented to combat complications as they arise. If any remedy can be found to cut short this distressing disease of childhood, about 8 per cent of the deaths before five years of age will be avoided—estimating from the bills of London mortality. In that metropolis, pneumonia, hydrocephalous and convulsions alone outrank it in fatality.

Two cases are insufficient to establish a fact ; therefore I hope to see the experience of others on this subject.

CASE NO. 1.

April 23*d*, 1852. I was called to see a female child, a year and a half, robust and healthy, with the exception of the hooping-cough. She had had the catarrh characteristic of the first stage, for ten or eleven days, and had taken the usual domestic remedies. She had hooped only twice, previously to my visit. Auscultation revealed nothing but a slight sonorous ronchus beneath the right clavicle. During the examination it had one of its paroxysms of coughing, accompanied by the characteristic hoops. The fit of coughing was neither long nor very severe. As there was no evidence of inflammation about the lungs, I determined to try Arsenic, and accordingly prescribed—

℞	Liq. Potasæ Arsenitis	gtt. xxv	
	Tinct. Opii,	gtt. xx	
	Aq. distil.	℥ ij	M. et S.

Tea spoonful thrice daily.

April 29*th*. The paroxysms of coughing had diminished in frequency and severity ; the bowels being costive, I directed the medicine to be discontinued for one day, and a purgative to be administered.

May 4*th*. The parents informed me that the hooping had ceased on the 1st inst. The cough had nearly disappeared. I directed the medicine to be continued for two days.

May 6*th*. The cough had entirely ceased ; the child was, apparently, perfectly well. I discontinued the medicine, ordered a purgative, and directed the parents to avoid exposing the child to sudden changes of temperature for several days. Its cough never returned.

CASE NO. 2.

April 27*th*, 1852. I was summoned, in haste, to visit a male child, two and a half years old, supposed to be dying from a severe paroxysm of hooping-cough.

When I reached the house, I found the patient recovering, but leaving terrible traces of the recent attack. The face was still swelled, and of a livid hue; the eyes were starting and injected; a slight mucous expectoration and vomiting had followed the paroxysm. In half an hour after my arrival the little sufferer had entirely recovered, asked for food, and returned to his amusements. He appeared perfectly well. Auscultation disclosed a very little coarse crepitation in both lungs. He had had the catarrh cough for 15 days, and the characteristic hoop for 5 or 6 days. I prescribed:

℞	Liq. Potassæ Arsenitis	℥ ss	
	Tinct. Opii	gtt. xx	
	Aq. Distil.	℥ ij	M. et S.

Tea spoonful three times daily.

April 29th. The parents think that the paroxysms are not quite so severe as they have been. I ordered the medicine to be increased to one tea spoonful four times daily.

May 5th. I found the child much better. The paroxysms had greatly diminished in severity, and somewhat in frequency. I ordered the medicine to be discontinued for one day, and then to be given three times daily in the same dose.

May 10th. The coughing fits were not half as frequent as they were originally, and they were not always attended by the hoops. I discontinued the medicine for one day, and gave a purgative.

May 17th. The hoop had disappeared, and a slight cough alone remained. I ordered the medicine to be continued until the cessation of the cough, and gave the same general directions as for Case No. 1. I met the father a few days after, who told me that they continued the medicine for three days after my visit, and that the patient had been perfectly well from that time.

BALTIMORE COLLEGE OF DENTAL SURGERY.

On the advertisement sheet of this number will be found the 13th annual announcement of the Baltimore College of Dental Surgery—an institution which has achieved much for the reputation and scientific knowledge of the dental art. Our object is to call the attention of those who may wish to practice this profitable branch of the profession, to the superior advantages presented by this school for the attainment of both the theoretical and mechanical part of the profession. The faculty is composed of gentlemen of high attainments, of liberal education, and every way qualified to prepare the student of dentistry for the practical duties of life. We refer to the circular.

AN ANALYTICAL REPORT OF THE UNITED STATES MARINE HOSPITAL,

FOR SIX MONTHS ENDING JUNE 30, 1852. BY P. B. MC'KELVEY, SURG.

DISEASES.	Discharged in						TOTAL.	DISEASES.	Discharged in						TOTAL.
	Jan.	*Feb.*	*Mar.*	*Apr.*	*May.*	*June*			*Jan.*	*Feb.*	*Mar.*	*Apr.*	*May.*	*June*	
Abscess -	0	2	4	3	2	1	12	Brought up -	56	66	87	54	50	93	406
Ascites -	0	1	1	1	0	1	4	Necrosis Tibia	0	1	1	0	0	0	2
Amaurosis -	1	0	0	0	1	0	2	Orchitis - -	1	0	3	2	1	0	7
Anchylosis	1	1	0	0	0	0	2	Opthalmia -	0	0	0	3	1	0	4
Arthritis -	0	0	1	0	0	1	2	Paralysis, partial	0	2	2	1	1	0	6
Anemia -	1	0	1	0	0	0	2	Phthisis pulmonalis	0	3	2	4	4	4	17
Ankle, Sprain.	0	3	2	0	0	0	5	Pneumonia typh.	0	0	0	0	1	0	1
Anasarca	0	0	0	1	0	0	1	Paronychia -	2	1	1	2	5	0	11
Bronchitis -	2	6	4	1	3	4	20	Pleuritis - -	0	2	0	0	0	1	3
Burn -	0	1	0	0	1	0	2	Rheumatism -	17	16	14	19	14	10	90
Bubo -	0	1	0	0	0	0	1	Rubeola - -	0	1	1	0	0	0	2
Contusion	4	4	4	1	3	2	18	Radius, disloca. of	0	0	0	1	0	0	1
Childblain -	0	3	0	0	0	0	3	Syphilis - -	28	23	23	17	22	29	142
Cataract	0	1	0	0	0	0	1	Spine, Injury of	0	0	1	0	0	0	1
Carbuncle -	0	0	1	1	2	0	4	Scald - -	1	0	1	0	0	0	2
Condylomata	0	0	2	0	1	0	3	Strict. of Urethra	1	3	2	0	3	2	11
Cholera Asph.	0	0	0	0	0	3	3	Scrofula - -	0	0	0	0	0	1	1
Colic, Bilious	0	0	0	1	1	1	3	Ulcer - -	5	5	7	5	7	6	35
" Pict.	0	0	0	0	0	2	2	Variola, confluent	0	0	0	0	0	2	2
Diarrhœa -	9	9	10	12	9	16	65	Wrist, dislocation	0	0	0	0	1	0	1
Dysentery	0	0	0	1	0	1	2	Wound, contused	5	7	4	1	1	3	21
Debility, gen.	0	1	1	0	0	2	4	" incised	1	0	2	1	0	0	4
Del. Tremens	0	0	0	1	0	0	1	" punctured	1	0	0	0	0	0	1
Erysipelas -	1	0	3	0	1	1	6								
Fever, interm.	13	11	20	16	8	29	97	TOTAL -	118	130	151	110	111	151	771
" remit.	1	2	12	2	3	9	29								
" typhoid	2	2	3	5	1	7	20	**DIED OF**							
" Chagr.	0	1	0	0	4	0	5	Abcess of Liver	1	0	0	0	1	0	2
Fracture, Rib	1	1	0	0	0	0	2	Cholera Asphyxia	0	0	0	0	2	1	3
" Leg	0	0	1	0	0	1	2	Diarrhœa -	1	0	1	0	2	1	5
" Clavicle	3	1	2	0	1	1	8	Dysentery -	1	2	1	0	0	1	5
Fistula in ano	0	1	0	0	0	0	1	Fever, typhoid	1	0	0	3	1	0	5
Gonorrhœa	12	7	7	6	5	9	46	Gastro-duodenitis	0	1	0	0	0	0	1
Gastrodynia	1	0	1	1	0	0	3	Hepatitis Chronic	0	0	0	0	0	1	1
Hydrocele -	1	0	0	0	0	0	1	Heart, disease of	0	0	0	0	0	1	1
Hernia -	0	1	0	0	1	0	2	Hydrothorax -	0	0	0	1	0	0	1
Hepatitis, chr.	0	0	1	0	0	0	1	Phthisis Pulm. -	0	1	2	4	1	0	8
Hyper. spleen	1	0	0	0	0	1	2	Pneumonia -	0	0	1	0	0	0	1
Iritis - -	1	2	6	1	2	1	13	Peritonitis -	0	0	0	0	1	0	1
Intemperance	0	2	0	0	1	0	3	Suicide - -	0	0	0	0	0	1	1
Neuralgia -	1	2	0	0	0	0	3	Spine, Injuries of	0	0	0	0	0	1	1
Carried up	56	66	87	54	50	93	406	TOTAL -	4	4	5	8	8	7	36

RECAPITULATION.

REMAINING in the Hospital, January 1st, 1852. - - -		99
ADMITTED to July 1st, - - - - - - - - -		807
		906
DISCHARGED to July 1st, - - - - - -	773	
DIED - - - - - - - - - - -	36	
	809	809
TOTAL Remaining July 1st, 1852. - - - - - -		97

ABSTRACT OF A METEOROLOGICAL JOURNAL FOR 1852.

BY D. T. LILLIE & Co., at the City of New Orleans.

Latitude, 29 deg. 57 min.; Longitude, 90 deg. 07 min. West of Greenwich.

WEEKLY — 1852.		THERMOMETER.			BAROMETER.			COURSE OF THE WIND.	FORCE OF THE WIND, Ratio 1 to 10.	Number of Rainy Days.	Quantity of RAIN — Inches.
		Max.	Min.	Range.	Max.	Min.	Range.				
June	24	93.0	76.0	17.0	30.15	30.05	0.10	S.	2.30	1	0.155
July	1	93.0	75.0	18.0	30.12	30.05	0.07	SE.	2.58	4	0.820
"	8	93.0	76.0	17.0	30.20	30.10	0.10	S.	2.00	5	1.005
"	15	92.5	74.0	18.5	30.15	30.05	0.10	NE.	2.50	4	0.330
"	22	91.0	74.0	17.0	30.18	30.08	0.10	NNW.	2.90	4	4.755
"	29	93.5	78.0	15.0	30.13	30.08	0.05	SE.	2.40	3	0.895
Aug.	5	95.0	79.0	16.0	30.10	30.05	0.05	S.byW.	2.30	2	0.555
"	12	92.5	74.0	18.5	30.15	30.00	0.15	NE.	2.57	2	0.155
"	19	90.5	75.0	15.5	30.20	30.00	0.20	NNW.	2.50	2	0.320

The Thermometer used for these observations is a self-registering one, placed in a fair exposure. Regular hours of observation: 8 A. M., 2 P. M., and 8 P. M.

CHARITY HOSPITAL,

Report for June and July, 1852.

	SEX.	JUNE.	JULY.
ADMISSIONS - -	Males	988	1141
Do. - - -	Females	422	387
		——1410	——1528
DISCHARGES - -	Males	791	982
Do. - - -	Females	349	349
		——1140	——1331
DEATHS - - -	Males	142	100
Do. - - -	Females	71	33
		—— 213	—— 133

There were 13 births in the Charity Hospital in June, and 21 in July.

There were 102 deaths from Cholera in June and 26 in July.

One case of Yellow Fever, the first one this year, died in the Hospital on the 20th August.

JUSTIN V. LOUBERE,
Assistant Clerk.

THE NEW-ORLEANS

MEDICAL AND SURGICAL JOURNAL.

NOVEMBER, 1852.

Part First.

ORIGINAL COMMUNICATIONS.

I.—REPORT ON THE MEDICAL BOTANY OF THE STATE OF LOUISIANA.

BY JOSIAH HALE, M. D.

(Concluded.)

Order, Ericaceae. The Heath Family.

Andromeda arborea, L. (Sowerwood, Sorrell Tree.) A rather small tree, bearing panicles of small, urn-shaped flowers; the leaves and wood are a fine agreeable acid, cooling and refreshing. (Raf.)

Kalmia hirsuta, L. Grows in Louisiana. (Riddell.) The leaves are used by the negroes and poor white people of South Carolina, for itch, and the mange in dogs; a strong decoction is applied to the eruption. (Porcher.)

Azalia nudiflora, L. (Coral Honeysuckle.) A handsome shrub, common along streams; flowers in February. Cotter says the blossoms are made into fragrant conserves at the North. (Raf.)

Vaccinum arboreum, Marshall. (Farcle-berry.) A large shrub; fruit astringent, but well flavored, frequently remaining on the tree through the winter. Bark of the root astringent; used, like the berries, in diarrhœa and dysentery.

V. frondosum, L. (Huckle-berry) and several other species; fruit useful in diarrhœa, scurvy, etc. Leaves astringent ; a tea used for sore mouth. (Raf.)

Cyrella racemiflora, Walt. A large shrub, growing around ponds, Covington. The outer bark of the elder shrubs, near the ground, is extremely light and friable, and absorbs moisture with so much avidity, that it may be used with advantage instead of agaric and similar styptics. When rubbed between the hands, it excites a sensation similar to that produced after immersing the hands in a strong astringent fluid. It forms a serviceable application to wounds or ulcers, when the indication is to cicatrize them. (Ell.)

Monotropa uniflora, Ell. (Indian Pipe.) Plant white, turning black on drying. Used by the Indians and herbalists. Juice mixed with water deemed a specific lotion for sore eyes. (Raf.)

Order, Aquafoliaceae. Holly Family.

Ilex opaca, Ait. (Holly.) Properties similar to those of I. aquifolium of Europe. Diaphoretic, emetic and cathartic. (Grif. Medical Bot.)

I. vomitoria, Ait. A handsome shrub, like most of the genus, with shining evergreen leaves, and persistent scarlet berries. The Indians considered it a holy plant. The leaves, toasted and boiled in water, form the "Black Drink" of the Southern tribes; they employed it in their councils to purge their bodies of all impurities. In small doses it acts as a diuretic ; in larger quantities, it produces copious discharges from the stomach and bowels.

I. prinoides, Ell. (Winter-berry.) The bark is astringent and tonic.

Prinos ambiguo, Ell. P. lævigata, P. verticellatus, L. (Winter-berry.) Bark tonic and astringent; used with advantage in diarrhœa, and as a corroborant in dropsy, etc.

Order, Ebenaceae. Ebony Family.

Dyospyrus Virginiana, L. (Persimmon.) The fruit, in this climate, is large and delicious; a good beer is made of it. The bark is tonic and powerfully astringent, advantageously used in bowel complaints, and as a gargle in ulcerated sore throat. The unripe fruit has been highly recommended by Dr. Malacca (American Journal Med. Science, October, 1842) as an astringent, in the form of infusion, syrup and tincture, in various forms of bowel disease, and in hemorrhage. (Grif.)

Styrax grandifolium, Ait. S. glabrum, Ell. S. pulverulentum, M. All abound in fragrant juice; this, in two foreign species, when in an inspissated state, is officinal, under the name of Storax and Benzoin. (Grif.)

Hopea tinctoria, L. Hir. (Sweetleaf.) A rather small evergreen tree. The root is bitter and aromatic, and is esteemed as a valuable stomachic. The leaves have a sweetish taste; they are used for dying woollens and silks of a yellow color.

Order, Sapotaceae. Sapodilla Family.

Bumelia lanuginosea, M.; lycioides, Ell. The bark is austere, said to be useful in bowel complaints; fruit black and unpleasant to the taste.

Order, Primulaceae. Primrose Family.

The plants of this order are rather beautiful objects of culture than valuable articles of the Materia Medica.

Samolus florabundus, Kunth. (Water Pimpernel.) Said to be antiscorbutic, aperient and vulnerary.

Lysimachia ciliata, L. L. Carpenterii, Riddell. (Loose-strife.) Subastringent.

Dodecatheon integrifolium, Nutt. Fragrant.

Order, Plantaginaceae. Plantain Family.

Plantago major, L. (Plantain.) This plant is now believed to possess but feeble powers, and consequently is rarely given internally. As an external application it has been recommended in ulcers of various kinds, and in indolent scrofulous tumors. (U. S. Disp.)

Order, Orobanchaeceae. Broom-rape Family.

Herbs destitute of green foliage.

Epiphegus Virginiana, Bart. (Beech-drop.) Bitter, astringent. The powdered root acts as an escharotic in inveterate ulcers. Supposed to be especially efficacious in those of a cancerous character.

Order, Bignoniaceae. Bignonia Family.

Tecoma radicans, Juss. (Trumpet Flower.) A shrubby vine. Leaves sweetish, acrid, depurative. Used with Stillingia, for yaws and to cleanse the blood.

Bignonia capreolata, L. (Cross Vine.) The root and vine, in infusion, answer the purpose of Sarsaparilla. (Porcher.)

Catalpa cordifolia, Ell. (Catalpa,) The bark is said to be vermi-

fuge. A decoction of the pods has been recommended in pectoral complaints, and the dried seeds, smoked like tobacco, have been found useful in asthma. The leaves are emollient and somewhat anodyne, and have proved beneficial in local pains, used as a cataplasm. (Grif.)

Gelsemium sempervirens, Juss. (Yellow Jessamine.) A climbing evergreen shrub, bearing a profusion of fragrant flowers. Common in pine woods, along streams and rivulets ; flowers in February and March. "Possessed of narcotic properties to a very considerable degree." A spirituous tincture of the root is said to have been used with success in chronic rheumatism. It has also been employed in obstinate intermittents. In an over dose it produces vertigo, perverted vision, etc. (Porcher.) A fatal case of poisoning occurred two years ago in this city, from the injudicious use of this article, in the hands of a quack. It is worthy of investigation.

Sessamum Indicum, D. C. (Benne.) Originally introduced from Africa by the negroes. The seeds and leaves are officinal; the former have a sweetish, mucilaginous taste, and abound in a bland, inodorous oil, closely resembling olive oil, and capable of being kept a long time without becoming rancid. The leaves contain a rich, gummy matter, which they readily give out to water, forming a bland mucilage. Two or three of the leaves stirred in a glass of water, will render it sufficiently viscid. This is much used in bowel complaints of children. As an application to irritable blistered surfaces, the leaves, dipped in water, are unequalled for their soothing effect, even by the slippery elm. The mucilage also forms an excellent application in opthalmia, diseases of the skin, etc.

Order, Scrophulariaceae. Figwort Family.

Verbascum thapsus, L. (Mullein.) The whole plant abounds in a narcotic principle, most active in the flowers and root. In this as well as botanically, it approaches Digitalis. It has been found useful in diarrhœa and dysentery attended with tormina ; also in chronic pulmonary affections. It should be used in decoction ; an ounce of the leaves and flowers boiled in a pint of water, and sweetened with honey ; dose, three or four ounces. Externally, the leaves steeped in hot water are used as an emollient anodyne.

V. blattaria, L. (Moth Mullein.) Properties similar to the last.

Scrophularia Marilandica, Ell. (Figwort.) The whole plant has a disagreeable fetid smell, and (especially the root) a nauseous and subacrid taste. It has been analyzed by Grandoni, and found to contain a brown, bitter resin, an extractive, having the odor of benzoic acid

with gum Inaline. It yields its properties to alcohol and water. Diuretic and sedative; externally, Figwort is used as a topical application to piles, and in various cutaneous eruptions. (Griff.)

Canobea Multifida, Benth. Used as tea in the West Indies. (Raf.)

Gratiola Virginica, L. (Hedge Hyssop.) G. aurea, Muhl.; G. acuminata, Walt.; G. pilosa, Ell.; G. sphærocarpa, G. flava, L.; G. Virginica, G. quadridentata, Mx. Several of these species, no doubt, possess identical properties with the G. officinalis, and might be substituted for it.

Veronica peregrina, L. (Speedwell) Is supposed, in some parts of the United States, to be very efficacious in scrophulous tumors of the neck. (Grif.)

V. Virginica, L. (Tall Speedwell.) The root is bitter and nauseous, emetic and cathartic. It yields its active properties to boiling water and to alcohol.

Gerardia quercifolia, Mx. Specific of the Sioux for the bite of rattlesnakes. Used also for the toothache. (Raf.)

Order, Verbenaceae. Vervain Family.

Verbena hastata, L. (Purple Vervain.) Bitter, emetic, and expectorant.

V. urticifolia, L. A decoction of this plant, with oak bark, has been advantageously used, in poisoning, from the poison sumach, also in erysipelas.

V. officinalis, L. (Nettle leaved Vervain.) Was held sacred by the ancients, and used by ambassadors in their treaties, sacrificial rights, etc.

V. aubletia, L. Contains an acrid mucilage.

Callicarpa Americana, L. (Bermuda Mulberry.) A shrub bearing red berries, in whorls around the stem, of a sweetish taste. Said to be useful in dropsies. (Porcher.)

Order, Labiateae. (Mint Family.)

A large order with us of herbaceous plants, with quadrangular stems and opposite branches and leaves, the latter studded with vesicles, containing an aromatic oil. They are in all cases destitute of any poisonous properties.

Lycopus Virginica, L. (Bugle Weed.) Grows in moist situations. The whole plant is officinal. It has a peculiar but somewhat aromatic

odor, and a disagreeable, bitter taste, imparting these properties to water; narcotic, tonic and astringent. Beneficial in pulmonary affections, diminishing the frequency of the pulse, allaying irritation and preventing cough. It acts like a mild narcotic, and at the same time displays tonic powers. It appears to act like Digitalis, in changing the frequency of the pulse, without the unpleasant symptoms so often attendant on the use of that article. It may be given in infusion or in syrup.

L. angustifolia, Ell. Var. L. sinuatus, Ell. Properties similar to the last species.

Collinsonia ovata, Ell. Plant one foot high. In dry pine woods. Flowers sept. The whole plant has a peculiar odor, owing to the presence of an essential oil. Carminative, tonic and diuretic.

Monarda punctata, L. (Horse Mint.) The whole plant has a strong aromatic odor, and a warm, pungent, somewhat bitter taste. It abounds in a powerful volatile oil, which is a good carminative, in doses of one or two drops, on sugar; as an external application, it is an efficient rubefacient and counter irritant, in some cases producing vesication.

M. Mollis, Ell. Less acrid than the former species, and better suited as a diaphoretic, when given in infusion.

Salvia officinalis, L. (Sage.) Used as a condiment; the infusion is used as a gargle, and also as a sudorific. It abounds in an essential oil, containing camphor.

S. lyrata, L. (Cancer Root.) The fresh leaves of this plant, when bruised and applied to warts, generally destroy them; it is necessary to continue the application several days, and renew it every 12 hours. Ell.

S. azurea, (La Marck.) Six feet high; flowers pale blue, occasionally white; properties unknown.

Physostegia variegata, L.; P. Virginica, Benth; P. virgata, Venet; P. denticulata, Ell.; P. intermedia, Nutt. (Dragon's Head.) Ornamental plants. The first named species is supposed to possess a "cataleptic power." (Porcher.) "Pourvues de cette singuliere faculté," namely, "ainsi la propriété de la cataleptique, c'est-a-dire, de garder la position dans laquelle on place la fleur." (Supplement to Dic. Univ. de M. Med. 252.)

Pycnanthemum Tullea, Leavenworth. (Mountain Mint) Several species of Pyenanthimum are indigenous to this State. This and P.

linifolium, Ph., are brought to market in New Orleans by the Indians.

Prunella vulgaris, L. (Heal-all.) Stimulant and astringent.

Scutellarea lateriflora, L. "A quack having formerly vaunted its virtues as a remedy for hydrophobia, this species bears the name of *Mad-dog Sculcap.*'

Trichostema dichotoma, L. T. linisare, Nutt. (Blue-curls.) Carminative and stimulant; used in flatulence of infants; an infusion of the plant is deemed by some as almost a specific in chlorosis; properties of the two species identical.

Teuchrium Candense, L. (Wild germander.) Aromatic, bitter and tonic.

Heyptis radiata, L. Bitter, aromatic.

Order, Boraginaceae. Borage Family.

Rough-leaved plants, with mucillaginous and emollient properties.

Cynoglassum Virginicum, L. (Hound's Tongue.) Root, vulnerary, styptic; used in wounds and fluxes; leaves narcotic like tobacco, when smoked. (Raf.)

Batschia canescens, Ph. (Cotile Root.) Puccoon of the Indians, who used it to paint their faces; used to color hair oil.

Heliotropium Indicum, Ell. (Turnsole.) A coarse, unsightly weed, used in Guinea and in India; the juice is applied to eruptive surfaces and opthalmias. (Ainslie.)

Heydrolea ovata, Nutt. Grows in shallow ponds, two feet high; a rather handsome plant, with corymbose blue flowers.

H. quadrivalvis, Walt. Marshy places, pine woods; a bitter principle exists in the genus. (Lindley.)

Order, Convolvulaceae. Convolvulus Family.

Convolvulus pandenatus, Ell. (Wild Potato.) Root large, milky, and of an acid taste; it is feebly cathartic and also diuretic, and has been employed with supposed advantage in stranguary and calculus complaints. (U. S. Disp.)

C. batatis, L. (Sweet Potato.) Many varieties; has been so long cultivated from the roots and slips, that it rarely flowers with us; sago has been made from it.

Cuscuta. (Love Vine.) Several species; said to be laxative and hydrogogue.

Order, Salanaceæ. Nightshade Family.

An extensive order, consisting mostly of herbaceous plants, with transparent juice. The properties of this order are not uniform, though the general character is that of acro-narcotics ; but the fruits of some species, and the roots of others, are among our most valuable esculents, the fruits of others, again, are purely stimulant. (Grif.)

Datura Stramonium, L. (Jamestown Weed.) The effects of stramonium are those of an acro-narcotic poison ; beneficially employed in neuralgia and rheumatic pains, allaying the excessive irritability of the system, but producing no disposition to sleep. Its most striking beneficial effects have been witnessed in spasmodic asthma, but even here, when smoked, (the mode of exhibition) it sometimes produces distressing effects, and hence should be used with caution. Externally, the extract of stramonium has been employed to dilute the pupil and lessen the sensibility of the eye ; cataplasms of the leaves have been found a beneficial application to inflamed and painful tumors, and to swelled breasts of nursing women. An ointment made of the leaves has been found to afford relief in hemorrhoids and painful ulcers.

Solanum Nigrum, L. (Nightshade.) Narcotic, diuretic and diaphoretic ; used in nervous and other painful affections, and in dropsy. Externally, in the form of poultice, to pained parts, hemorrhoids, etc. Naturalized.

S. Virginianum, Ph. Properties and uses similar to the last.

S. Carolinense, Mx. (Horse Nettle.) Valentin employed the Horse Nettle in tetanus (non-traumatique). The juice of five or six berries were used, augmenting the dose from day to day. (Porcher.)

S. tuberosum, L. (Irish Potato.) In addition to the value of the Irish Potato as an esculent, the leaves and stems possess the medical properties of the genus ; an extract of the leaves is highly spoken of by Mr. Dyer, in chronic rheumatism, and in painful affections of the stomach and bowels. Ph. Jour. 1, 590. (Porcher.)

S. lycopersicum, L. (Tomato.) The fruit forms a wholesome article of diet ; stated to act on the biliary organs in a very marked manner. (Grif.)

S. melongena. (Egg Plant.) This furnishes another edible fruit in general use.

Physalis viscosa, L. (Ground Cherry.) Said by Clayton to be actively diuretic. Of this genus we have six or seven species—three perennial.

Order, Gentianaceæ. Gentian Family.

Sabbatia angularis, Ph. (American Centaury.) This is the most common species of an American genus of plants, with rose colored flowers, of great beauty, and possessed of a pure bitter principle, with no astringency and very little aroma. It is said to act as an emmenagogue, when given in warm infusion, (Grif.) The other species, natives of this State, are S. chloroides, Ph.; S. brachiata, Ell.; S. corymbosa, Bald.; S. calycosa, Ph.; S. campestris, Nutt.; S. gentianoides, Ell. All possess similar properties.

Lisianthus glaucifolius, Nutt. A beautiful flowering plant. Properties probably similar to Sabbatia.

Gentiana saponaria, Ell. (Blue Gentian.) Grows in damp places and along rivulets, pine woods; readily known by its beautiful blue flowers, expanding late in autumn. Properties similar to the European gentian, and may be employed for the same purposes. Wood.

Spigelia Marilandica. L. (Carolina Pink-root.) A beautiful flowering plant; in shady woods. Whole plant actively anthelmintic, purgative and narcotic.

Frasera Caroliniensis, Walt. (American Columbo) Frasera is an efficacious, bitter tonic, inferior to Columbo, but fully equal to most of the other articles of the class. Grif. Grows in Louisiana. Carpenter.

Order, Apocynaceæ. Dogbane Family.

A large order, principally tropical, composed of trees, shrubs and herbaceous plants, abounding in a milky juice; many of them are fine showy plants; the whole are suspicious, for although a few yield edible fruits, and some an innoxious milk, the greater proportion are acrid and poisonous. Grif.

Apocynum canabinum, L. (Indian Hemp.) The officinal portion is the root, which pours out a milky juice, on being wounded; it is emetic, cathartic and diaphoretic. The disease in which it has been found most useful is dropsy; sometimes operating as a hydrogogue cathartic, and at others causing the most profuse discharge of urine, and thus relieving the tissues of their morbid burden.

A. androsæmifolium, L. (Spreading Dogbane.) In medical properties very similar to the last.

Foresteronia difformis, D. C. A climbing shrub. The juice of this plant is said to be sufficiently caustic to destroy warts and schirrous ex-

crescences; coagulates milk, with which it is used as a wash for freckles.

Nerium oleander. (Oleander, Laurier Rose.) Introduced. This differs from the other plants of the order in having a transparent, and not a milky juice, which is said to clear muddy water; the leaves are an active poison, and even the wood is highly deleterious. An ointment made by boiling the leaves in oil or lard, is in much repute in the South of France, in cutaneous eruptions, and to destroy vermin infesting the hair or skin. Grif.

Order, Asclepiadaceæ. Milkweed Family.

This extensive order is composed, with us, of herbaceous, erect and twining plants, abounding in a milky juice.

Asclepias tuberosa, L. (Butterfly-weed.) Readily distinguished by its numerous umbells of bright orange colored flowers; the root is the officinal part; it is diaphoretic, expectorant, and also acts as a mild tonic; it has been employed in pleurisy, and other affections of the pulmonary system, with most decided benefit, producing a copious flow of perspiration without exciting the circulation. Dr. Eberlee found it useful in dysentery; it readily imparts its virtues to boiling water, and may be used in infusion mixed with syrup or honey, or in powder; dose ʒj—ʒj. Used by Indians in snake-bite. Seven or eight other species of asclepias are indigenous to Louisiana, most of which are probably endowed with active medical properties.

Gonolobus Carolinianus, Ell. (Negro Vine.) The root acts on the bowels like Colycinth. The juice serves to poison arrows in Guiana. Raf.

G. macrophyllus, Mx. The properties are probably similar to the last.

Order, Oleraceæ. Olive Family.

Chionanthus Virginica, Walt. (Fringe Tree.) A small and highly ornamental tree, growing in dry soil. The bark is tonic and febrifuge, with some aromatic properties. An infusion of the root is given in long standing intermittents.

Ptelia trifoliata, Ell. (Uling Seed.) A shrub or small tree. Leaves vulnerary, vermifuge, in tea or poultice. Raf.

DIVISION III.

APETALOUS EXOGINOUS PLANTS.

Order, Aristolochiaceæ. Berthwort Family.

Asarum Virginicum, L. A. arifolium, Mx. Wild Ginger. Grow in Louisiana, Riddell. The root, which is the part used, has an aromatic and bitterish taste intermediate between ginger and serpentaria. The odor, especially in the fresh state, is aromatic and grateful. It contains an aromatic essential oil, upon which its activity depends. The root is an aromatic, stimulant and diaphoretic, resembling serpentaria in its action, for which it may be advantageously substituted in most cases where that valuable article is applicable. Properties of both species the same.

Aristolochia serpentaria, L. (Virginia Snakeroot.) The root has a penetrating smell and bitter taste; it acts as a stimulant tonic and diaphoretic, and in some cases as an anti-spasmodic and anodyne, Lindl.

A. hastata, Nutt. Grows in shady woods; flowers in April.

A. reticulata, Nutt. Grows in pine woods; common; properties similar, and equal if not superior to the officinal species.

Order, Chenopodiaceæ. Goose-foot Family.

Chenopodium album, L. (Lamb's Quarter.) Leaves succulent, edible, vulnerary; useful in gout, pleuritis, œdema, varix and fistula, Raf.

Ambrina, anthelmentica, Spach. (Worm Seed.) This is well known as one of our most efficient indigenous anthelmentics, adapted to the expulsion of lumbrici in children; it may be administered in a variety of forms, as the expressed juice of the fresh plant, an electuary of the seeds, either pulverized or toasted, a decoction of the leaves in milk, and the essential oil. The latter is the best, as it contains the active principles of the plant in the smallest compass, and is not more offensive to the palate or stomach, than the other preparations. It may be taken on sugar, one to ten drops three times a day, gradually increased; it should be followed after some days by a dose of castor oil.

A. ambrosioides, Spach. Properties somewhat similar to the above, but less active.

Order, Amaranthaceæ. Amaranth Family.

Achyranthes repens, Ell. A small prostrate plant; grows in the streets of New Orleans and about dwellings. A decoction of the whole

plant sensibly increases the urinary discharge ; in domestic practice it is usual to give it warm, ad libitum, to patients laboring under ischary or dysury ; the remedy is generally successful, Ell.

Order, Phytolacacæ. Pookeweed Family.

Phytolacca decandra, L. (Pokeweed.) The berries, root and leaves of the Poke are the parts used in medicine ; the berries are succulent and contain much purple juice ; they have a sweetish but acrid taste ; in tincture they have acquired a well-founded reputation as a remedy for chronic and syphilitic rheumatism, and for allaying syphilitic pains, Lindl.

The root is an exceedingly active emeto-cathartic, and in large doses causes most of the symptoms of the acro-narcotics ; the dose in powder, as an emetic, is 20—30 grains ; as an alterative 1—5 ; externally, a drachm of the powder mixed with an ounce of lard, has been found efficacious in psorea, tenea capitis, and some other cutaneous diseases. The leaves are acrid, but lose this property on being boiled, and are used as greens ; the young shoots, which are thick and succulent, and when etiolated by being covered with rubbish, among which the plant frequently grows, are eaten as asparagus, and by many preferred to that vegetable, being more tender.

Rivina phytolaccoides, Nutt. A beautiful plant, with racemes of pale purple flowers, which are succeeded by bright scarlet berries ; of no known medical value, but should be examined.

Order, Polygonaceæ. Buckwheat Family.

Polygonum aviculare, L. (Knot Grass.) A mild astringent, formerly employed as a vulnerary and astringent.

P. hydropiper, L. P. hydropiperoides, Mx. (Water Pepper.) The leaves of these plants have a burning and biting taste, and even vesicate when applied to the skin, and produce the same effect on the horse, completely removing the hair from the part on which it is rubbed : employed in veterinary practice as a revulsive ; occasionally used as a detergent in chronic ulcers, and internally in gravel. Doctor Eberlee strongly recommended it in amenorrhœ, in which complaint he found no other remedy equally effectual. Dose, one drachm of the saturated tincture, or 4—6 grains of the extract, three times a day. U. States Disp.

P. amphibium, L. The root has been employed as a substitute for sarsaparilla.

Rumex crispus, L. (Dock.) Root astringent and tonic, said to resemble rhubarb in its operation; employed externally in various cutaneous affections. The leaves of several species of dock are used as greens.

Order, Lauraceæ. Laurel or Bay Family.

Laurus sassafras, L. (Sassafras.) A large shrub, occasionally becoming a tree seventy feet in height and two in diameter; most parts of the tree, but especially the bark of the root, abound in an essential oil, of a yellow color, heavier than water; the bark is stimulant and diaphoretic, and is used, in combination with other articles, as guaicum, sarsaparilla, etc., in cutaneous, rheumatic and venereal complaints; the leaves and pith afford an abundance of mucilage, of a peculiar character, not being affected by alcohol; used as an application to inflamed eyes; they form an excellent diluent drink in affections of the bowels and bladder; as a culinary article, the leaves, finely powdered, are employed in making gumbo.

L. Carolinensis, Mx. (Sweet Bay Laurier.) A small tree or shrub, growing in damp places, pine woods; bark and leaves acrid and aromatic; the latter and the buds mucilaginous, stomachic, carminative and emmenagogue; leaves used in cookery.

L. mellissæfolia, Walt. Grows around pounds, etc. A shrub, possessing similar properties to the last.

L. Benzoin, Walt. (Spice-bush.) An aromatic shrub, flowering in February, before the expansion of the leaves, and ripening its scarlet berries in September; these last are aromatic and contain much oil; the bark is also aromatic, tonic and stimulant, and has been employed with much success in the treatment of intermittent fevers; it has usually been administered in decoction, but sometimes in powder, Grif.

Order, Loranthaceæ. Mistletoe Family.

Viscum verticillatum, Ell. At one time the mistletoe was highly esteemed as a remedy for apoplexy, palsy and other nervous diseases, but is now out of use; the white viscid berries are used in making bird-lime.

Order, Ulmaceæ. Elm Family.

Ulmus fulva, Mx. (Slippery Elm.) Elm bark has a peculiar odor and not unpleasant taste; children are fond of it in its fresh state, and it forms a good article of diet when nourishment of the blandest kind is required; it abounds in mucilage; the bark of old trees is to be pre-

ferred, being thicker, less fibrous, and more brittle than that of the young trees; the complaint that the former description (U. S. Disp.) is inferior, must be owing to its having been damaged, or possibly to some other bark being mixed with it. Slippery Elm bark is emollient and demulcent, applicable to all cases where medicines of this class are employed; it is especially recommended in dysentery, diarrhœa and diseases of the urinary passages, Wood. The dry, inner bark, from its expansive property, has been formed into tents and bougies for dilating sinususes and morbid contractions of the urethra. By glueing thick pieces of the bark together, tents or bougies of any desirable size are formed. Externally, the bark forms an invaluable emollient application to inflamed and irritable surfaces; it may be applied in the form of poultice.

The following species of Elms also abound in this State: U. Americana, L. U. racemosa, Thomas. These are large trees. U. atala, Mx., (Wahoo) a small tree; U. crassifolia, Nutt, a tree rather below the middle size, flowering in September. The bark of all these is astringent and tonic, but not at all mucillaginous.

Cettis occidentalis, Mx. (Hackberry.) Bark anodyne, cooling; berries, sweet, astringent, good to eat, useful in dysentery, Raf.

C. pumila, Ph. Properties similar to the above.

Order, Saururaceæ. Lizard's-tail Family.

Flowers fragrant, roots emollient, discutent; used in poultice, roasted and mashed, by the Cherokees, Raf.

Order, Euphorbiaceæ. Spurge Family.

Trees, shrubs and herbs with milky juice; their original character is acridity, in some to such a degree of concentration, as to be poisonous, while in others it is merely sufficient to render them emetic, cathartic, etc.; and in some again it is so diminished, that their juice is mild and nutritive, Grif.

Euphorbia corollata, L. (Wild Ipecac.) A very common and well known plant, growing in dry soil; the root, which is the officinal part, is inodorous and almost tasteless. According to Dr. Zollickoffer, who first introduced it to the profession, it contains resin, caoutchouc, gum, and probably starch. It is a certain and active emetic, but like most articles of its tribe, is liable to act on the bowels, and in over doses with extreme violence; in very small doses it acts as a diaphoretic. Dose as an emetic, 15—20 grains; as a diaphoretic, 2—3. The recent

root, bruised and applied to the skin for a few minutes, will create a pustular eruption.

E. hypericifolia, L. (Black Purslane.) Astringent and narcotic; beneficial in dysentery, also in menorrhagia and fluor-albus. Dose, a wine glass of the infusion, one ounce of the dried plant to a pint of boiling water, several times a day.

E. thymifolia, L. In India the powder is administered in the verminose diseases of infants. Ainslie.

Acalypha Virginica, L. This plant is said by Dr. Aikin to be expectorant and diuretic; he has used it successfully in cases of humid asthma, ascites and anasarca. Ell.

Stillingia sylvatica, L. (Queen's Delight.) Grows abundantly in dry pine woods; used to some extent in South Carolina in scrofula and cutaneous diseases, Porcher. From observations of Dr. Lopez, of Mobile, it appears to be one of our most valuable indigenous alteratives; he employed it in combination with sarsaparilla, in secondary and tertiary syphilis, typhoid fever, chronic rheumatism, etc., with eminent success. (N. O. Med. and Surg. Jour. vol. 3, p. 40.) Used by the Camanche Indians in chronic diarrhœa. This practice has been followed by an intelligent planter of this State, on his plantation, for many years, with satisfactory results.

S. ligustrina, Mx. A handsome shrub, worthy of investigation.

S. Sebifera, L. (Tallow Tree.) Introduced from China; cultivated in and around New Orleans as an ornamental shade tree; it bears a profusion of flowers, which, on a large majority of trees, are all sterile, and when they are fertile, many of them fall off without producing fruit. The infertility is probably owing to the tree having been cultivated from branches instead of seed. The Chinese, according to Thunberg, employ the concreted oil extracted from the fruit, in the manufacture of candles; an ointment made from the oil is employed in nocturnal fevers. Porcher.

Ricinas communis, L. (Palma Christi.) A native of China; in gardens and neglected places; grows well and bears abundantly.

Order, Juglandaceæ. Walnut Family.

Juglans nigra, L. (Black Walnut.) Grows in fertile hills; inner bark acrid and styptic; dyes black; the fresh rind of the fruit cures ringworms, tetters, etc. Nuts edible, yield oil; immature fruit used for pickles and making catsup.

Carya olivæformis. (Pecan.) A large forest tree, esteemed for its edible nuts. Several other species of carya yield edible nuts; bark of all the species astringent; tinctoreal; used for dying woollens on plantations.

Order, Cupuliferæ. Oak Family.

Quucus tinctoria. (Black Oak.) Of the oaks, we have in Louisiana about twenty species, all trees, generally large; they are of greater use in the industrial arts than as medical agents; their general character is that of astringents; they all possess similar properties, varying in degree, principally.

The bark, which is the officinal part, has an austere, bitterish taste, and contains tannin, gallic acid and an extractive matter. It is astringent and somewhat tonic, and has been used with advantage in intermittent fever, chronic diarrhœa, and in certain forms of passive hemorrhage; externally applied it is often productive of benefit: the decoction may be advantageously used as a bath, particularly for children, where a combined tonic and astringent effect is desirable, and the stomach is not disposed to receive medicines kindly. It has been employed in marasmas, scrofula, intermittent fevers, chronic diarrhœa and cholera infantum; as an injection in leuchorrœa; a wash in prolapsus ani and hæmorrhoidal affections; and a gargle in slight inflammation of the fauces, attended with prolapsed uvala; the decoction is often highly useful. U. S. Disp.

Castanea vesca, L. (Chestnut.) In Louisiana, Riddell, chestnut; a large tree, not found in the western part of this State.

C. pumila, Mx. (Chinquepin.) A shrub or small tree, frequently attaining a height of 39—40 feet, with a diameter of 15—20 inches.

C. alnifolia, Nutt. (Dwarf Cinq.) A small shrub, with creeping roots, growing in patches, pine woods.

The fruit of all these species is sweet and edible; the bark is astringent and tonic, and has been employed in the cure of intermittents.

Fagus feruginea, Ait. (Beech.) The bark of the beech is astringent, and has been used in the treatment of intermittents. A narcotic principle called fagine has been found in the husks. The nuts are edible; they afford an oil little inferior to olive oil. The lard of hogs fattened on beech nuts is oily, and the flesh soft and of an inferior quality.

Order, Myricaceæ. Sweetgale Family.

Myrica cerifera, L. (Wax Myrtle.) A very common evergreen

shrub; the bark of the root is acrid, stimulant and astringent. The decoction is employed as a domestic remedy in chronic diarrhœa of children. The berries afford a large amount of wax, of a peculiar green color. It is procured by boiling the berries, when it rises to the surface of the water; it appears to possess astringent and narcotic properties, and has been successfully employed in typhoid dysentery. (Am. Jour. Med. Scien. III. 313.)

M. Caroliniana, Wrang. A small shrub, with larger leaves than the last; properties similar.

Order, Betulaceæ.

Betula nigra, L. (Black Birch.) The bark has a sweet spicy smell and taste; diaphoretic; the empyrumatic oil of the distilled wood gives the peculiar smell to Russia leather. Raf.

Alnus serrulata, Ait. (Alder.) The bark and leaves are bitter and somewhat astringent; used in scrofula and cutaneous diseases; also in hæmaturia; the bark is used by tanners and dyers.

Order, Salicaceæ. Willow Family.

Salix nigra, Ell. (Black Willow.) A small tree, very common on river banks, etc.

S. longifolia, Muhl. (Long-leaved Willow.) Smaller than the last, tall and slender, flowering after the expansion of the leaves.

S. Conifera, Wrang. (Cone-leaving Willow.) A small shrub, grows on moist upland and prairies.

These species possess analogous properties; the bark has a bitter, astringent taste, and when dry, a slight aromatic odor. It has been long employed as a substitute for the Peruvian bark in the cure of intermittent fevers, but is comsidered inferior to that article. Salicin possesses tonic properties analogous to quinia, but in an inferior degree; as a simple bitter it appears to rank with gentian, colombo, etc.; its principal good effects being seen in the improved appetite that frequently follows its use.

Populus angulata, Ait. (Cottonwood.) One of our largest forest trees; common in alluvial soil; the bark possesses properties analogous to that of the willow; it contains salicin, and another chrystalizable principle called populin. The leaf buds exude a resinous substance of a balsamic odor and bitterish, pungent taste. It has been employed in the form of spirituous tincture in pectoral, nephritic and rheumatic complaints.

Order, Balsamifluæ. Sweet Gum Family.

Liquidamber styraciflua, L. (Sweet Gum.) This tree exudes a fragrant, balsamic resin, in this climate, in considerable quantities; sought after by children, who are fond of chewing it. Properties those of the other balsams, Grif.

Order, Urticaceæ. Nettle Family.

Morus rubra, L. [Red Mulberry.] A small tree, grows in fertile soil. Mulberries are refreshing and laxative, and serve to prepare a grateful drink well adapted to febrile cases; a syrup is made from the juice, and used as a pleasant addition to gargles, in inflammation of the throat; they are, however, more used as food than medicines. U. S. Disp.

Maclura aurantia, Nutt. [Osage Apple.] A tree 30 feet high, wood compact, saffron colored; grows on Red River. Properties unknown, but probably deserving enquiry.

Urtica Canadensis, L. [Canada Nettle.] Stinging, bark fibrous; has been spun as flax.

U. purpurascens, Nutt. [Purple Nettle.] Nearly allied to U. dioica, and possessing similar properties; hæmostatic.

Pilea pumila, Gray. [Rich Weed.] The smooth stems pellucid; said to be useful in the form of poultice, to inflamed surfaces, and to relieve the eruption caused by the poison sumach.

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SUB-CLASS GYMNOSPERMÆ.

Order, Coniferæ. Pine Family.

Pinus australis, Mx. [Long-leaved Pine.] A large tree, forming vast forest, to the exclusion of almost every other growth. This species furnishes the greatest proportion of turpentine obtained in the Southern States.

P. tæda, Willd. [Loblolly Pine, Old-field Pine.] This is a much larger tree than the preceding, frequently growing in moderately fertile soil, overtopping the surrounding forest trees; yields turpentine in moderate quantity and consistent quality.

P. mitis, Mx. [Yellow Pine.] Like all the genus, yields turpentine.

Cupressus disticha, L. [Cypress.] A rich balsam is obtained from

incisions in the tree and from the cones, by boiling ; it is diuretic and carminative ; externally it is applied to cuts and wounds.

Junipems Virginiana, L. [Red Cedar.] Grows abundantly and to a middle sized tree, on the alluvial lands of Red River, near the State line. The leaves only are officinal ; they have a peculiar, not unpleasant odor, and bitter taste, stimulant, diaphoretic, diuretic and emmenagogue.

CLASS II.

Monopetalous or Endoginous Plants.

Arum draconitum, L. [Indian Turnip.] A Triphillum, L. These species possess identical properties ; the corm or root in the recent state has a peculiar odor, and is virulently acrid, producing a burning sensation when applied to the tongue ; the partially dried root has been advantageously given in asthma, chronic catarrh, chronic rheumatism, and various affections connected with a cachectic state of the system. It may be given in doses of ten grains, in sugar or gum arabic, repeated several times a day; the roots may be preserved fresh in sand for medical use for a long time ; the turnip yields starch of a superior quality.

Peltandria Virginica, Raf. [Virginia Indian Turnip.] Properties similar to the preceding ; grows in marshes.

Acorus Calamus, L. [Calamus Sweet Flag.] The root, the part used, has a strong and fragrant odor, and warm, bitterish, aromatic taste ; it yields its virtues to water, but more fully to alcohol. It is stimulant and tonic; useful in colic and atonic conditions of the stomach, and other deranged conditions of the gastric organs ; it may be given in powder ; dose, ℈j, or in infusion; when prescribed in flatulent colic of children, it should be combined with magnesia, Grif.

Order, Typhaceæ, Cat-tail Family.

Typha latifolia, L. [Cat-tail.] The powdered flowers have been used as an application to ulcers. The pollen of typha is inflammable, like that of lycopodium, and is used as a substitute for it, Lindl.

Order, Alismaceæ. Water Plaintein Family.

Aquatic or semi-aquatic plants, with fleshy roots, which are wholesome and nutritious.

Sagittaria sagittifolia, Mx. [Arrow-head.] Several varieties; the root is much employed as food among the aboriginal tribes. The leaves applied to the breasts of nursing females, it is said, will tend to dispel the milk, Grif.

Several other species of arrow-head grow in this State, all probably possessing similar properties.

Order, Orchidaceæ. Orchis Family.

This is an extensive order, with us, of perennial herbs, more remarkable for the bizarre figure of their multiform flowers, which are sometimes of surpassing beauty, than for their value as remedial agents; the nutritive substance salep, is supposed to be derived from some species of orchis; and it is probable that all the species of this and the allied genera will afford this article.

Cypripedium pubescens, Ell. [Ladies Slipper.] The root, which is the officinal part, is mucilaginous, and has a pungent, nauseous taste; sedative and antispasmodic; employed as a domestic remedy in numerous affections of the nervous system. Dr. Ives has used it in hypochondriacal cases and certain neuralgic affections, with morbid sensibility of the whole nervous system, obtaining from a dose of twelve grains sound and perfect sleep, when all the usual preparations had failed. Our other native species of cypripedium, C. specabile, Willd, and C. parviflorum Salisb, Riddell, are supposed to be identical in properties with the preceding.

Goodyera pubescens, R. Br. [Neottia, Ph.] [Cancer Weed.] G. gracilis, Beyll. G. latifolia, Torr. G. cernua, Ricord. G. æstivalis. Sensible and medicinal properties very similar to cypripedium. The recent plant and roots bruised are applied in cancer, lupus and other ill-conditioned ulcers; the root is given internally in the form of powder, in nervous and convulsive diseases; it quiets irritation of the nervous system and produces sleep.

Order, Amaryllidaceæ. Amaryllis Family.

Amaryllis atomasco, L. [Atomasco Lilly.] A beautiful vernal plant, said to poison horses and cattle, producing the disease called staggers.

Pancratium coronarium, Le Conte. Grows in marshes, flowers in April.

P. occidentale, Le Conte. Grows in dry soil; flowers in August;

handsome flowering plants, with large bulbous roots. Fresh roots emetic; acts like squills, but weaker; diuretic, Raf.

Hypoxis erecta, L. [Star Grass.] Root tuberose, edible, eaten by children, sought after by hogs, which become fat by feeding upon them. Vulnerary, febrifuge, used in agues and in chronic ulcers. Raf.

Order, Hædonoraceæ. Bloodwort Family.

Aletris farinosa, L. [Blazing Star.] Root intensely bitter; tonic and stomachic, and in large doses emetic and cathartic, displaying narcotic properties. Employed with benefit in colic, in chronic rheumatism, and in dropsical affections; a spirituous tincture is the best form of administration.

A. aurea, Walt. Flowers yellow; expand later than in the preceding species; properties no doubt similar.

Order Iridaceæ. Iris Family.

Iris versicola, L. I. hexagona, Walt. I. cuprea, Ph. I. cristata, Mx. [Flower-de-Luce.] All more remarkable for the beauty of their flowers than for their utility. The recent root has an unpleasant acrid taste, which is diminished by age; it is emetic, cathartic and diuretic. It was a favorite remedy amoug the Indians, and used by them in most cases requiring purgation, Grif.

Sisyrinchium anceps, S. Bermudianum, S. mucronatum, Mx. S. minus, Gr. and Eng. [Blue-eyed Grass.] The roots of all our native species are acrid, and in decoction are said to be purgative, Grif.

Order Dioscoreæ. Yam Family.

Dioscorea villosa, L. [Wild Yam.] A decoction of the root is unquestionably a valuable remedy in bilious colic; an ounce of the root is to be boiled in a pint of water, and half of it given at once. It acts with remarkable promptitude; diaphoretic, expectorant and emetic. Riddell.

Order, Smilaceæ. Smilax Family.

Herbaceous plants and under shrubs, sometimes climbing and often having fleshy tubers.

Smilax herbace, L. Properties unknown.

S. glauca, Walt. S. sarsaparilla, L. Grows in moist woods, very common; root large and tuberous. Spoken of by Martens [Travels, I.

96] as being highly prized in Brazil as a specific in syphilis, and also beneficial in gout and chronic cutaneous complaints.

S. pseudo-China, L. Grows in Louisiana, Riddell. Used in medicine as an alterative, and as well as the preceding species, forms the basis of many diet drinks. From these roots, with sassafras, Indian corn and molasses, the negroes manufacture a very agreeable beer, Ell.

S. laurifolia, L. Stem large, prickly below; climbing small trees, and covering them with its rich evergreen foliage. Root tuberous, large; enters into the composition of diet drinks, sarsaparilla compounds, etc. Used as food by the aborigines, and the practice has been made available by their European successors in time of scarcity. Flowers in August, and matures its fruit in winter. Grows about springs, and in places perennially moist.

S. lanceolata, Walt. In deep marshes; berries red; they abound in a substance resembling caoutchouc, capable of great distension; blown into balloons by children.

S. pumila, Walt. Prostrate, berries scarlet; in dry soil.

Some half dozen other species of smilax are common in this State, most of which possess similar properties to the foregoing.

Trillium sessile, L. [Three-leaved Nightshade.] The only species found in this State. To the North they are numerous; they all possess the same properties. The tuberous roots have a faint terebinthenate odor, and a peculiar aromatic taste, producing, when chewed, a sensation of heat about the fauces and an increased flow of saliva. They were in use among the Indians in hemorrhagic discharges, particularly in those peculiar to females, Grif.

In domestic practice they are administered preparatory to parturition, hence the name, Birthroot, Riddell. The roots are generally violently emetic, and their mawkish, rather nauseous berries, are at least suspicious, Lindl.

Order, Liliaceæ. Lilly Family.

Asparagus officinalis. [Garden Asparagus.] A native of Europe, escaped from gardens, and partially naturalized in this country; diuretic. U. S. Disp.

Polygonatum pubescens, Ph. [Smaller Solomon's Seal.] Properties

similar to Convallaria Polygonatum, Lam. Vide United States Disp. 1320.

Scilla angustata, Eng. and Gr. [Quamash,] [Beargrass.] Probably only a variety of S. esculenta. Natchitoches and above.

S. crocea; dry soil; a much smaller plant than the preceding. V. Pursh. Flor. Am. Sept. 1, 226.

Order, Melanthaceæ. Colchicum Family.

Melanthium Virginicum, L. Grows in wet, shady situations. Like most of the order, this is an active poison; a certain but rather dangerous remedy for the itch; used as a wash. U. S. Disp.

Stenanthium angustifolium, Gray.

Veratrum, Pursh.

Grows in open pine woods; root bulbous; stem 4—6 feet high, slender; panicle of white flowers, often two feet long. Medical properties probably similar to those of V. viride. [See N. O. Medical and Surgical Journal, for September, 1852, p. 141.] Worthy of investigation.

Order, Commelynaceæ. Spiderwort Family.

Commelyna Virginica, L.

C. erecta; C. communis. [Day Flower.]

Properties identical; root antifebrile; leaves eaten by the Indians as greens, emollient, pectoral and anodyne; the blossoms afford a fine azure blue, by a peculiar process, called Hoosack, in Japan, Raf.

Tradescantia Virginica, L.

T. pilosa, Lehm.

T. rosea, Went. [Spiderwort.]

Ornamental, leaves much liked as greens by the Cherokees, Raf.

Order, Cyperaceæ. Sedge Family.

Grass-like plants, with solid, triangular stems.

Cypecus repens, L. [Nut-grass, Sweet Coco.] Grows in fertile, sandy soil; tubers sweet, edible, sought after by hogs.

C. hydra, Mx. [Coco Grass, Bitter Coco.] This scourge of the Southern planter has gradually spread until it has reached the Northern boundary of the State, at a few points. It was probably introduced from the West Indies, where it is said by Dr. Hamilton to be a pest to

to the sugar plantations, overrunning them and rendering them barren. The roots are bitter, and slightly astringent; eaten by hogs.

Cyperus articulatus, Mx. Grows in Louisiana, Carpenter. In Guinea this is considered one of their remedies for worms, Mer, and De Lens.

Eliocharis palustris, R. Br. [Bog Scirpus.] Lemay says the roots are astringent, and that they are employed in decoction in diarrhœa and hemorrhage. Mer. and De Lens. Porcher.

Order Gramineæ. Grass Family.

Stems cylindrical, hollow, closed at the joints.

Ozyra sativa. [Rice.] A genus supposed to consist of but a single species. The varieties are almost innumerable, some of which differ widely from each other—"Being wholly free from laxative properties, it is adapted to cases of lax bowels, in which there is a tendency to diarrhœa." The opinion that a rice diet produces injurious effects on the eyes, is maintained by Dr. Porcher, whose opportunities of observation appear to have been ample. Doctor Dickson, on the contrary, dissents from it entirely. Rice is still cultivated to some extent in this State, but less than formerly.

Zea maize. [Indian Corn.] This useful genus, native of America, like the preceding, comprises but a single species, but the varieties are exceedingly numerous. Corn differs from the other ceralia in containing no gluten; hence the meal does not undergo the fermentation called rising, Grif.

Cynodon dactylon, Pers. [Bermuda Grass.] Introduced, common; the root is used in the shape of ptisan, as an apperient and diuretic; the extract is said to purge, like manna; the plant contains a nutritive principle. Dem. Elem. de Bot., quoted by Porcher.

Glyceria fliutans, R. Br. [Manna Grass.]

Saccharum officinarum, L. [Sugar Cane.] Probably a native of Southern Asia. Many varieties cultivated. Sugar is but little employed in medicine, but enters largely into the composition of many compound remedies. Dr. Rush says that sugar and molasses, when freely used by children, are excellent anthelmintics; sugar has likewise proved beneficial in scurvy, and in some chronic diseases of the skin; it has been recommended as an antidote in poisoning by arsenic and several other mineral salts, but as its action is merely that of an emol-

lient and demulcent, it should not be relied on to the exclusion of other remedies, Grif.

Zizania aquatica, L. [Wild Rice.] Grows in marshes, frequently in water, six to twelve feet high; ripens its fruit in October. The grain is a favorite food among the Northern Indians.

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SERIES II.

Cryptogamous or Flowerless Plants.

Vegetables destitute of proper flowers.

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CLASS III. ACROGENS.

Order, Equisetaceæ. Horse-tail Family.

Equiesetum hyemale, L. [Shave Rush.] Formerly grew in dense brakes of great extent, on the alluvial land of the Mississippi and Red River, six feet high; roots stimulant and diuretic; used in dropsies, meastural and syphilitic diseases, Raf. Produces purgation in horses; useful for polishing wood and metal; a property which is due to the great quantity of silex deposited beneath the cuticle.

Order, Felices. Ferns.

Leafy plants, with the leaves generally rising from prostrate root-stalks, rolled up in the bud.

The leaves generally contain a thick astringent mucilage, with a little odor, on which account many are considered pectoral and laxative. The stems are both bitter and astringent, hence have been employed as anthelmintics; they are emmenagogue and purgative.

Polypodiaeæ. True Ferns.

Polypodium incanum, Willd. Grows on the inclined trunks of trees. Properties probably similar to P. vulgaris. Vide Grif. Med. Bot. 670.

P. hexagonopterum, Mx. Shady woods.

Pteris aquilina, L. [Common Brake.] Root [stem] astringent and vermifuge; said to be a remedy for tape worm, an ounce of the infusion being given at a dose. This plant yields a large proportion of alkali,

and on the burning of the pine woods, where it grows abundantly, returns to the soil a fertilizing principle in which the pine is deficient; the astringent principle renders it useful in the preparation of leather and kid gloves, Porcher.

Osmunda spectabilis, Willd. [Flowering Fern.] Root demulcent, sub-astringent, esculent, boiled in milk like arrow-root; useful in diarrhœa, cholera infantum, etc., Raf.

O. cinnamomea, L. [Common Fern.] Vermifuge; eaten by Indians, Raf.

Botrichium Virginicum, Swatz; lunairoides, Swatz. [Manwort.] Mild astringents.

Ophioglossum vulgatum, L.

O. bulbosum, Ell. [Snake Leaf.] Emollient; used for ulcers and sores, Raf.

Lycopodium alopecuroides, L. [Clab-Mass.]

L. clavatum, L.

L. Corallinianum, Rid. Diuretic, emmenagogue and aperient. Used in dropsy, gout, scurvy and diarrhœa. Inflammable pollen used in pyrotechnics, Raf.

ADDENDA.

Scutellaria lateriflora. [Sculcap.] Dr. Cleaveland of Vermont recommends the sculcap as a valuable nervine, allaying nervous irritability from whatever cause produced. In delirium tremens, tic-douloureux, convulsions from irritation of the ganglionic nerves or spinal cord, in chorea sanctiviti, dental irritation among children, as well as in the ordinary diseases of the nerves, when a soothing and quieting medicine is indicated, Dr. C. prefers it to all other antispasmodics, except where a more immediate impression is desirable, when he would have recourse to ether, chloroform, etc. He considers it a tonic, diaphoretic, and diuretic.

Dr. Stabler of Virginia adds his testimony to the efficacy of the sculcap in tic-douloureux, tremors from alcoholic drink, and depression of spirits from dyspepsia. Dr. C. has no experience of the remedy in hydrocephalia, but is disposed to believe it may deserve some portion of the reputation it once enjoyed in that formidable disease. Dose, ℥ j infused in a pint of water, and a wine-glass to be taken three or four times a day.

Isnardia palustris, L. [Water Purslane.] A small creeping or floating plant, on the margins of ponds and ditches. Used for asthma

and chronic cough, phthisis,etc ; also in catarrhal fever. An infusion, ℥j to a pint of water, and drank during the day, will often relieve the paroxysm of asthma, after the most powerful narcotics have failed. Ives.

Isnardia natans, T. and Gr. A larger plant than the preceding, with longer capsules, and perfectly formed petals, frequently submersed. Properties, no doubt, very similar.

Bumeliaceæ. [Pine Apple Family.]

Agave Virginica. [Virginia Aloe.] Plant four feet high, flowers fragrant, root bitter. Tincture used for cholic. Chewed in obstinate diarrhœa by the Cherokees. Violent, but efficient, Raf.

A. Americana, L. [American Aloe, Maguey.] A large evergreen, succulent plant, indigenous in Mexico and other parts of tropical America.

The supposition that the agave flowers but once in a century is erroneous ; this happens every fifteen or twenty years, a long period being required for the offshoots to attain sufficient maturity to bear flowers and fruit.

On being tapped it yields a large amount of saccharine juice, which, by evaporation, may be converted into syrup, and even sugar. By fermentation it is changed into the vinous liquor called Pulque, from which a spirit, known under the name of Vino Muscal, is obtained. The juice, when fresh, has an acrid taste, and reddens litmus paper. It is said to be laxative, diuretic and emmenagogue. The fibres of the old leaves, separated by bruising and maceration in water, are used for forming thread, [Lenoble] which is woven into coarse fabrics suitable for common wear. Cordage, likewise, of a durable character, is manufactured from it.

II.—CASE OF SPINA BIFIDA—IMPERFORATE ANUS—RETENTION OF PLACENTA FROM MORBID ADHESION—DISEASE OF THE FUNIS, &c.—RECOVERY.

BY W. TAYLOR, M. D., ALA.

The following cases, from the number of abnormal conditions which they comprise, are sufficiently interesting to be placed on record. They were in the person of a young married woman, and a fœtus, which recently fell under my observation, some of the particulars of which are as follows ;

Was called on the 13th of July last to see Mrs.——, a woman of robust constitution, sanguinio-bilious temperament, aged about 20, whom I found in the second stage of labor, in the eighth month of her first pregnancy. On making a digital examination, I found the os uteri considerably dilated with a foot presentation ; but regarding the maxim, that a " meddlesome midwifery is bad," I did not attempt to turn the fœtus, but left the labor to its natural course. It progressed smoothly and rapidly, and in about three hours after making the first examination, the membranes were ruptured, and a living fœtus quickly expelled.

MONSTROSITY.

The fœtus presented a most rare and singular case of malformation. The spinous processes of the four lower lumbar vertebræ were entirely wanting. In the situation of the mal-formed bones was a soft, fluctuating humor, filled with a light chocolate colored fluid. The fluid forming the tumor was contained within the membranes, or sheath of the spinal marrow, and was not covered by the common integument.

The concave surface of the os coccygis looked posteriorly, the inferior extremity of which formed a projecting, bony tumor, somewhat after the manner of a rabbit's tail, which gave it a most singular and grotesque appearance.

The anus was imperforate, and drops of meconium were constantly oozing from the urethra, making it plainly evident that the bowel had terminated in the bladder.*

The scrotum was bifurcated, and formed two folds, resembling the labia pudenda of the female. In these folds were lodged the testes, which were of common fœtal size.

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* Dr. H. McKenzie, an eminent practitioner of this place, has met with two cases of imperforate anus, in which the rectum terminated in the bladder.

The penis was *without a prepuce*, and in general conformation closely resembled the clitoris of the female. The only conditions which made it dissimilar to the clitoris were its enlarged size, and the passage of the urethra through it. The urethra was highly inflamed, from irritation set up by the meconium, which, as stated above, escaped from it.

The right foot was almost of a jet black color; the skin gradually becoming lighter as it ascended the leg, until it reached the knee, when it again assumed its natural hue. The great toe on this foot had three phalangeal bones, and greatly distorted from its natural form. The whole length of the fœtus was about fifteen inches. I regret that I could not obtain the permission of the parents to bear it off, for a more minute and thorough inspection—it having died about half an hour after birth.

Funis. The cord was much diseased, and so very fragile that it would not bear the traction of more than a few ounces. Its diameter was almost triple as great as it should have been—the increased size being produced by the too abundant deposition of gelatin in its cells.

Placenta.—After waiting the usual time for the expulsion of the placenta, there being no uterine pains, I endeavored to excite them by grasping the womb through the abdominal parieties, but could effect nothing practical by it. Failing by this means to excite the uterus to contraction, I administered a dose of Ergot, which produced several severe pains, but the mass was yet unmoved. On introducing my hand into the cavity of the uterus, I found that the placenta was retained by morbid adhesion. A segment of about one third of its surface was detached, while the other two thirds was firmly agglutinated.

Insinuating my fingers cautiously under the detached portion, with my knuckles towards the uterine surface, and the palma face looking to the placenta, I endeavored, by a gentle sawing motion of the fingers, to continue the separation, but found the agglutination so firm and unyielding that it could not be done. I next expanded my fingers over the fœtal surface, and tried the effect of squeezing the edges towards the centre; but all that I could do in this way was to break the placenta.

Finding separation impossible, I brought away the detached portion, and left the remainder to time and the *vis medicatrix naturæ.*

She had considerable hemorrhage, which all ceased with my manipulations. Giving her an anodyne, which immediately composed her, and remaining with her two hours longer, to see that no hemorrhage occurred, I left her, to visit her again on the morning of

July 14*th.* Find her more composed this morning than I expected. Skin moist and cool; tongue very slightly furred; slight pain in the back, and some soreness in the uterine region; pulse 122 beats per minute; free discharge from the bowels. Ordered a saline purge, with warm teas through the day.

July 15*th.* Hot skin, and excrutiating pain in the back, radiating thence through the abdomen and thorax. Tongue white and dry; pulse wiry and 140 beats per minute; great nervous disturbance, and constant twitching of the muscles, and an intolerable tenderness of the abdominal viscera. Prescribed a drachm dose of Laudanum immediately, which was repeated at the expiration of 30 minutes. At the end of 40 minutes these formidable symptoms had all measurably disappeared; the skin becoming soft, the tongue moist, the nervous system composed, the pulse comparatively soft, and falling down to 120 pulsations per minute; and in one hour and a half the patient was sleeping. Left her the following:

℞ Calomel, grs. iii
Opii Pulv. gr. i

To be given at intervals of four hours, until four portions are taken.

Several fragments and shreds of the placenta, with clots of blood, were discharged during the day. Ordered emollient poultices to the vulva, and warm fomentations to the abdomen; the vagina to be freely syringed with soap and water three or four times per day. The opium to be discontinued, if any symptoms arose to contra-indicate its use.

July 16*th—Morning.* Saw her this morning, and learned that she had experienced two severe rigors during the latter part of the night, with intense pain in the abdomen, and great sense of constriction and oppression in the chest. Had also vomited freely twice—skin moist, but hot, and pulse 140 beats per minute. Administered a full dose of Sulph, Morphine, which allayed the pain, and composed the bowels, which were being purged too freely by the Calomel. Suspended the use of the Opium, ordered light broths, and enjoined rest until the evening.

Evening.—Symptoms much improved; skin moist and cool; pulse scarcely 100, and soft. Continued the light broths, with instructions to repeat the opiates, should any untoward symptoms arise. Free discharge from the vulva, containing shreds of the placenta.

July 17*th.* Visited her this evening, with my esteemed friend Dr.

W. H. Moore. Learned that she had experienced some uterine pains during the night, but no fever. Discharged this morning the remaining mass of the placenta. A large portion of its surface, when it first came away, presented a fresh appearance, as though it had just been detached; the balance of it was black and putrid, and offensive to the smell. Pulse 96, and the patient entirely free from pain. A slight diarrhœa existed, for which we presbribed an opiate. Ordered warm ablutions, a light nourishing diet, and dismissed her. She recovered perfectly without another untoward symptom.

Remarks.—It may be thought a useless waste of time to thrust a report on the profession, upon a subject, from which no practical good seems likely to result; but its interest, no less than its novelty, has seduced me into it. And besides, by observing nature in her eccentricities, and studying her imperfections and irregularities, we are more likely to arrive at some knowledge of her mystical laws, than if we regard her only in her healthy condition. Says a distinguished author, "By learning what parts she can dispense with, we can ascertain those organs essential to existence; and by tracing the deviations from her common course, we may, perhaps, be led to a more correct acquaintance with her *modus operandi*."

I am aware that some obstetricians inculcate the doctrine of bringing away the placenta at all hazards, and if it cannot be detached, to tear and claw it away piece meal. But I am satisfied that such a practice is infinitely more perilous in its results than that of leaving the mass behind; and besides, it is obvious to the reflecting mind, that a large mass of the placenta would be more easily and certainly expelled by the contractile efforts of the uterus, than a number of small, detached fragments; while the former may be expelled after a few days, in a body, the latter must be removed either by a process of putrefaction, (attended with an offensive and loathsome discharge) or else the more perilous one of absorption, with its fearful train of consequences.

Four cases of *retained placenta from morbid adhesions*, and irregular contractions of the uterus, all of which have terminated favorably, have fallen within my knowledge in the past two years; and while I would by no means be understood to underrate the dangers of leaving the placenta in the womb, I would at the same time venture the opinion, that there is much less danger in letting it remain than the exercise of undue force in its abstraction. But in either case the strictest vigilance should be kept, and the first untoward symptom promptly met and subdued.

Talladega, Ala., August, 1852.

III.—ON THE USE OF QUININE IN CONTINUED FEVER.

BY E. D. FENNER, M. D., NEW ORLEANS.

The July number of this Journal contains an article from the able pen of Dr. Boling, "*on the use of Quinine in Continued Fever*," in which I find myself so pointedly referred to, as to demand some notice at my hands. I must express surprise that my views and suggestions relative to the *abortive treatment* of continued fever should have called forth such a criticism without having been honored with a *single experiment* by the author. It seems to me that if they were deemed worthy of notice at all, they should have at least had a *trial* before being condemned. Any other course can but appear like a studied effort to forestal the judgment on a question which can alone be definitively settled by experience. Before entering into any discussion with Dr. Boling, it may be well to state briefly the facts and views I have presented to the profession, and which, it seems, have attracted his special attention.

In the second volume of my *Southern Medical Reports* there appeared a short, but extraordinary paper "*on the good effects of large doses of quinine in continued fever*," from the pen of Dr. Thomas Fearn of Huntsville, Alabama, at this time a commission merchant of New Orleans, but for many years one of the most distinguished physicians and surgeons that ever practised in the Southern States. In this paper Dr. F. gives a graphic account of a terrible *continued fever* that prevailed in the year 1831 among a few families residing in the vicinity of Huntsville, and corresponding very accurately with the descriptions given of the *typhoid* fever, at this time prevailing throughout the Southern States. That fever proved intractable to all the various plans of treatment then in vogue; such as blood-letting, emetics, cathartics, mercurial ptyalism, stimulants, anodynes, and the steam or Thompsonian course. They *all failed*, and death was slowly but surely sweeping off every one attacked. In this painful and trying emergency, which appeared to defy all the known resources of our art, Dr. Fearn, with the boldness that ever characterizes true genius, resolved to try a desperate experiment with the *great febrifuge, the sulphate of quinine.* It was determined, in consultation with two other able and experienced physicians, (Drs. Erskine and Wharton,) that in the case of a young

lady who had been sick three days with the prevailing fever, when the most perceptible remission should occur, the sulphate of quinine should be given in doses of 20 grains, repeated every hour *pro re nata*. As the remission was expected to occur about midnight, Dr. F. remained to superintend the prescription. I quote his words:

"When the fever was at its highest there was slight delirium, great distress about the precordia, and tenderness on pressure, with rapid, small pulse and hot skin. When it began to abate, the dose agreed upon was administered. No very sensible effect was observed, and at the expiration of an hour, the dose was repeated. Before the expiration of the second hour the pulse was reduced in frequency, and was softer than it had been since she was taken ill. The skin, for the first time, was moist, and she was more composed; nevertheless, the third dose was given at the end of the second hour. Shortly after she became quite tranquil, and fell into a sweet sleep—perspired freely—the pulse became reduced from 120 to 80 in the minute, and from that time she was convalescent. Her brother was treated in the same manner, a few days after, and with the same success."

These are the only cases specially reported by Dr. Fearn, but he goes on to say:

"The gloom which had hung over the distressed family, and the panic which had spread through the neighborhood and cut off all communication, except with a few devoted friends, now subsided. The other sick were put under the same course of treatment, and all in whom the disease had not progressed too far, were cured."

I will take this occasion to add what Dr. Fearn told me in person, although it is omitted in his paper: It was agreed by the three attending physicians on the case of the young lady, that the dose of quinine should be *twenty grains*; but there were no scales at hand, therefore it had to be guessed at. He put out four portions, as near the amount as he could guess, and having administered *three* of them, he took the other to town for the purpose of weighing it. He says it weighed *thirty-two grains*, and therefore supposes he really gave the young lady *ninety-six grains of quinine in two hours*.

So much for Dr. Fearn's "remarks on the good effects of large doses of the sulphate of quinine in continued fever." Has Dr. Boling or any other writer who condemns the use of this potent remedy in typhoid fever, ever given it such a trial? If they have published any such reports, I have not been able to find them. But to continue the statement of our position.

At the close of Dr. Fearn's extraordinary paper I appended a somewhat lengthy *note*, in which I took occasion to express the apprehension

that late medical writers in the South had perhaps *too hastily* condemned the use of this potent medicine in the treatment of typhoid fever. I said I did not think any of them had given it *a fair trial.* I admitted the difficulty of giving it such a trial in this type of fever, on account of its slow and insidious manner of attack, and the lateness of the period when the physician is generally consulted. I maintained that *large doses* of quinine, as an *abortive* remedy, should be given in the *forming stage* of fever, or withheld altogether, and that it was vain to expect *ten or twenty grain doses*, given at the eighth or tenth day of this fever, to cut it short. I said farther—

"If the practitioner be not sufficiently familiar with the action of quinine in large doses, to venture on from twenty to thirty grains in combination with one or two grains of opium, and perhaps ten of calomel or blue mass, at *one dose, and within the first two or three days of the attack*, we would advise him not to tamper with this remedy at all, but *carefully nurse the patient through the natural course of the fever.* We would not be understood as confidently recommending the *abortive method* of treating typhoid fever, for our experience has been too limited to authorize us to do so; but we will say that, if we intended to practice it, something like the plan just mentioned would be the one we should adopt. We cannot but think that the *typhoid fever* of the South, which seems to have so greatly increased of late years, *is one of the Protean forms of endemic malarious fever*, and as such, we should expect quinine to cure it, *if rightly administered.*"

These are the facts and opinions that have been commented on by Dr. Boling; let us now examine his comments in the order they appear in his paper.

He commences by noticing the diversity of opinion that exists among Southern physicians as to the effect of quinine in *continued fever*, more especially typhoid fever, and quotes first Dr. Gibbs of this State, one of the contributors to my *Southern Medical Reports*, who, in his account of the typhoid fever that prevailed in Mansfield, Louisiana, says that "from the mixed nature and decided periodicity of many of the cases" he was led to suppose that quinine would prove "a valuable adjuvant" in the treatment; but, says he, "after repeated trials, in doses large and small, I was forced finally to abandon it entirely, as not only useless in every case, but in many cases decidedly prejudicial to the patient."

I have only to say, in reference to this testimony, that it is altogether *indefinite*, and does not affect my position at all. Dr. G. does not mention the *size* of his "large and small doses," nor at what stage of the disease he gave them. What he says of "*the mixed nature and decided periodicity* of many of the cases," will be referred to hereafter.

Dr. Boling disposes of the testimony of Dr. Fearn in a rather summary manner. He admits that "the symptoms" (of Dr. F.'s continued fever,) so far as they are given, correspond very well with those of the fever now known among us as typhoid fever;" but says, farther on, "he (Dr. F.) does not speak, however, of the post mortem appearances, and notwithstanding the resemblance, I am forced to the belief, that the disease in question was not the one now known among us as typhoid fever. I cannot think it possible that this malady, when established in a recognizable form, can be cut short by quinine." Now it is somewhat to be regretted that the *post mortem* appearances of some of the fatal cases were not given by Dr. Fearn, so as to have removed all doubts from the minds of those who believe that *certain organic lesions are invariably present* in this disease; but let it be remembered that this is by no means the *unanimous opinion* of the profession at this day. Dr. Fearn could give *no autopsies* after he adopted the quinine treatment, because the cases *all got well.* But the last quoted remark of Dr. Boling would appear to afford a complete clue to his judgment. He does not think it *possible* for typhoid fever to be *cut short by quinine;* and therefore, all the *supposed cases* (no matter how striking the resemblance) that are reported to have been cut short in this way, *were not typhoid fever.* Now, if this does not show a *foregone conclusion,* I should like to know what more would be required. But notwithstanding this strong expression of opinion, Dr. Boling himself appears to greatly qualify, if not contradict it, in another place, where he says—"Although I have never myself been able to cut short, by the use of quinine, an unquestionable case of typhoid fever, and although it is now pretty generally the impression among such physicians of this section of Alabama as I have conversed with on the subject, that it cannot be so arrested, it is more, whatever my own belief, than I would be willing to assert, *that it may not be done.*" He also makes the following candid admission, which leads him into the same dilemma. He says—"I have never myself given the remedy in typhoid fever to the extent indeed that Dr. Fearn did in the cases in which he succeeded with its use, though I have frequently given it in *mild* cases without this effect, in doses, with which I am in the habit daily of arresting with certainty and at once, the most *violent* attacks of the various forms of miasmatic fever. Either then my doses have been too small, or the disease now called typhoid fever among us is different from the cases which were treated with quinine successfully by Dr. Fearn, and which he calls typhus, notwithstanding the striking resemblance between them."

This is literally *begging the question.* He has never given Doctor Fearn's treatment *a trial;* but inasmuch as he failed to cut short *mild* cases of typhoid fever with such doses of quinine as in his hands arrested *violent* attacks of the various forms of miasmatic fever, it follows, either that his doses were too small, or Dr. Fearn's disease was not typhoid fever—and *the latter is evidently his conviction.* The *abortive* treatment of typhoid fever may turn out to be a vain hope and fallacious belief, but it will certainly require stronger facts and reasoning than are here presented to prove it so.

But let us now see how Dr. Boling gave the sulphate of quinine in typhoid fever, and examine the amount and value of *his* experience with the remedy. It will appear to be somewhat contradictory, though he says he occupies a medium position between Dr. Gibbs and Dr. Fearn. I will select from his late paper, first, such passages as appear to be *favorable* to quinine, and afterwards such as appear *adverse;* at the same time taking the liberty of italicising such remarks as I may deem worthy of special attention.

1. Dr. B. says:

"In a *very few cases* of typhoid fever under my treatment, I think I have seen an unfavorable effect produced by quinine, apparently through a local action on the gastro-intestinal mucous membrane; augmenting the already existing irritation of this part. In a *still smaller proportion* of cases, I have thought its influence—not apparently exerted in the manner just mentioned—upon the nervous system, has been unfavorable; *sometimes* it has apparently produced neither a favorable nor unfavorable effect; while *often* its influence has been *decidedly beneficial.*"

I consider the weight of testimony in this paragraph as resting on the favorable side.

2. Dr. Boling says, that

"In some cases the disease presents somewhat of an *acerbative character*;" (paroxysmal I presume he means) and that "in such cases, *frequently*, though not invariably, quinine given in pretty full doses, *will control entirely, or greatly diminish* the violence of the exacerbations, and in that event, as may readily be understood, its influence upon the progress of the case will generally be favorable; *and I have seen it thus beneficial.*"

I consider this testimony decidedly favorable, because most of the writers on typhoid fever in this country, particularly in the South, all speak of the frequent occurrence of this *paroxysmal* character in the early stages of the fever. This is the time to *cut short* the disease; and if Dr. Boling had only pushed the remedy more boldly, I have no doubt he would have succeeded in almost every instance. But then,

as the tenor of his paper plainly indicates, *he would not have believed he was curing typhoid fever.*

3. Again, Dr. B. says:

"In cases in which the febrile excitement has been running high—the pulse frequent, the skin hot and dry, and the tongue parched and pointed—with such doses of the remedy as I have ventured to give, I have sometimes succeeded in subduing the high excitement—reducing the pulse from 120 or 130, to 90 or 100—diminishing the heat of the surface, rendering it, as indeed also the tongue, moist, and the patient's feelings and condition generally altogether more comfortable—and this improved condition I have seen maintained for days, under the continuance of the remedy. Invariably, however, (with exceptions hereafter to be noticed, where there was reason to believe that a favorable crisis took place independently of the effects of the remedy during the time of its administration) the febrile symptoms have returned on the suspension of the quinine, and the disease has passed on through its course, apparently unaffected by the temporary interruption in part of its progress; as if, though the remedy had exerted its usual controlling influence over the heart and arteries, while continued, it was totally without power or efficacy to neutralize permanently or effect the elimination of the poison or particular cause of the disease from the system."

In this paragraph Dr. B. confesses that he had seen with his own eyes the beautiful effects of quinine, even "with such doses as he ventured to give," when "*febrile excitement was running high,*" with all its distressing accompaniments. In the name of conscience, why did he not continue to keep his patients in the "*altogether more comfortable and improved condition*" in which the quinine had placed them, instead of yielding up the advantage gained and consigning them to the long and painful *natural course* of the disease? I must contend that the testimony is here again *favorable;* and I regret that Dr. B. did not push the remedy a little farther. I now have a case in one of my wards at the Charity Hospital, in which the fever was fully established at the time of admission. It resisted my doses of quinine and laudanum (℈i of the first and 3 ss of the latter) for three or four days, but the patient was kept comfortable by it and the fever gradually gave way. About the fifth day of the treatment I gave some small doses of the Hydrarg. cum Creta and Dover's powder, (the bowels being loose) and convalescence was very soon established.

4. Dr. B. says—

"It is true that in one or two instances, in which I barely suspected the possibility of a commencing attack of typhoid fever—the existing symptoms being much such as might be present in many forms of slight indisposition, and certainly not characteristic of the fever in question—I have succeeded in arresting permanently the pro-

gress of the disease, or preventing the attack, if one was really threatened, by a full dose or two of quinine."

Here again Dr. B. displays his usual skepticism. "If an attack of typhoid fever was really threatened," which he "barely suspected," it was *arrested* or *prevented* "by a full dose or two of quinine;" but because it succeeded so well, he evidently doubts whether the cases would have ever proven to be typhoid fever. Now, claiming as much consideration for my *partiality* to quinine as for Dr. Boling's *prejudice* against it, I may venture to think that the instances in question *were typhoid fever* in its forming stage, and that the attack *was* arrested or prevented by the treatment adopted; and furthermore, that if the Doctor had not a *little more* than "*barely suspected*" this to be the case, he would hardly have prescribed *full doses* of quinine for symptoms of merely "*slight indisposition*." This would appear still more strange if there was no typhoid fever in the family or immediate vicinity. If there was, it would be favorable to my view; but this is not stated. Whenever any dangerous disease is prevailing, whether it be typhoid fever, yellow fever, or cholera, my rule of conduct is to watch carefully the first evidences of attack, and as soon as they are sufficiently palpable, to resort to *efficient* remedies. If I arrest or cut short the attacks, some may doubt whether I have had any cases; but I can enjoy my own opinion, and my patients have the benefit. As my remedies will *do no harm*, even if unnecessarily administered, but a great deal of good if the attack really is at hand, I prefer to err on the *safe side*. Under this plan, if called in time, I hardly ever fail to cut short all cases of fever; and the result is, that I have not had a case of continued fever to treat in private practice for three years past. But more of this anon.

In the same paragraph Dr. Boling mentions the good effects of quinine "in several mild cases," given "on the 14th, and in one, about the 21st day of fever"—"the favorable crisis which then occurred (he says) has seemed *more decided or marked, than in any cases* in which I have not used it, at about the period of the natural termination." But here again he displays his skepticism and prejudice as follows: "I judge that in the instances referred to, a favorable change may have been about to take place naturally—in part, from an amelioration of some of the symptoms prior to the administration of the quinine, but more, because in these cases the remedy, tried at an early period, had failed to arrest their progress." In these quotations Dr. Boling's *observations* are far more valuable than his *inferences*. He testifies that in

several mild cases, quinine given so late as the 14th and 21st day of fever, seemed to produce *a more decided crisis* than occurred without its use; we are at liberty to think what we please of his inferences.

I have already given Dr. Boling's strong expressions in support of the *advantage* to be derived from the liberal use of quinine in typhoid fever, even when it failed to *cut short* the disease. He goes on subsequently to say he had seen "a similar mitigation of febrile action produced by it not only in the various phlegmasiæ, but also in severe cases of organic disease of a necessarily fatal character, in which it was merely used as a palliative, to keep in subjection, with the attendant fever, various unpleasant symptoms, seemingly arising from, or aggravated by it." This is strong testimony in favor of the general remedial virtues of the sulphate of quinine, and, with what precedes, embraces the most that is presented on this side of the question in the paper before us. We will now look to the *other side;* and in doing so we shall have occasion to examine more particularly Dr. Boling's method of using quinine in typhoid fever.

Dr. Boling professes "great partiality for the remedy," and says he commenced its administration in typhoid fever with not a little confidence of success, based upon a long and satisfactory use of it in many other diseases;" but, it seems, he "was not less astonished than mortified at the result." Now, I have pointed out several instances in which it seemed to me he displayed any thing but *partiality* for the remedy. On the contrary, I think his remarks plainly indicate a *foregone conclusion* that typhoid fever cannot *possibly be cut short by quinine*, and that the several mild cases, in which this happy result followed its use, would have terminated equally as favorably if this medicine had not been given. The reader will form his own conclusion after all the facts have been fairly presented. After declaring his "great partiality for the remedy," and confessing his astonishment and mortification at the result of his experiments with it, Dr. Boling says:

"Reflecting upon the probable cause of my failure to cut short the disease in its progress, by a remedy from which I expected so much, notwithstanding that I could temporarily control the febrile action, it occurred to me that it might be owing to an inherent tardiness of the reparative process, in the lesion of the intestinal glands. With the view, consequently, of preventing, if possible, this intestinal lesion, by arresting in its incipiency the fever, the *very early* administration of quinine became a main point in the treatment of the disease with me, till, I think, the experiment was fairly tried."

Now, although not disposed fully to agree with Dr. B., in attributing

the *probable cause* of his failure to cut short the disease to "an *inherent tardiness of the reparative process* in the lesion of the intestinal glands," being rather of the opinion that no such lesion exists at the *incipiency* of the fever, still I think he hit upon a very happy idea in his determination to endeavor to *prevent* this organic lesion and *to arrest the fever* in its incipiency by the very early administration of quinine; but I must respectfully but decidedly differ with him in his opinion that the experiment *was fairly tried.* Let us see now what Dr. B. calls a *fair trial.* He says he "gave quinine in typhoid fever, in its various stages, but without observing any difference in its effects, in any way connected with or growing out of the period to which the case had extended." The quotations preceding will show that whenever he used the remedy, whether early or late in the attack, the effect was *generally salutary*—sometimes apparently *cutting short* the fever, and when it failed to do this, relieving distressing symptoms, and rendering the condition of the patient "altogether more comfortable." But notwithstanding these favorable results, Dr. B. unfortunately thought proper to suspend the use of the remedy; and then "the disease pursued its ordinary course." But how did Dr. Boling give the remedy the "*fair trial*" he speaks of?" Dr. Fearn has distinctly stated the plan in which he gave it and the glorious results that followed; and I have suggested what I should consider a *fair trial* of it. Without having tried either of these plans, Dr. B. criticises both. Dr. Fearn and myself claim to have *cut short* continued fever by the plans we have laid down, and have therefore the right to claim these plans as a sort of *standard* by which to estimate the *fairness* of a trial. We shall see how near Dr. Boling's practice comes to this standard. He says:

"As to my cases, in one case I gave twenty grains, repeating it in two hours, and thirty-six grains daily for the two or three succeeding days, in three doses of twelve grains each, at intervals of twelve hours, always between midnight and day, supposing that the febrile action would be less at this time. In other cases, I have given daily, say two doses of sixteen grains each, or three doses of twelve grains each, at short intervals, repeated for several days in succession; and again I have kept up its continuous operation by doses of eight or ten grains, repeated every six or eight hours for several days; and always the result has been much the same. Nor have I neglected any adjuvant measures with which I was acquainted, calculated to secure its beneficial influence. I have given it in combination with full doses of morphine, and I have given it without; I have preceded its administration, where the state of the bowels would admit of it, with small doses of blue mass; I have used the warm foot bath and warm drinks; and I have used tepid or cold ablution of the entire surface and cold drinks."

How very different is this plan of Dr. Boling from those followed by Dr. Fearn and myself. Dr. Fearn gave 96 grains of quinine in the course of two hours, in doses of 32 grains, and completely arrested a malignant continued fever which had hitherto proved altogether intractable. Dr. Boling, *in one case*, gave 20 grains, repeating it in two hours; and afterwards 12 grains at a dose, to the extent of 36 grains a day. This is his *boldest practice.* In other cases he gave two doses of 16 grains each, followed by doses of 8 or 10 grains, for several days in succession. He says also that he did not neglect such adjuvant measures as he thought were "calculated to secure its beneficial influence," such as "full doses of morphine," small doses of "blue mass, warm baths, etc." I wish the Doctor had been somewhat more definite in stating what were his "full doses of morphine," as well as at *what stage* of the disease he gave them. But although I cannot for a moment admit that the methods of using quinine in typhoid fever, described by Dr. Boling, allowed the remedy *any thing like a fair trial* with a view to its *abortive* powers, I am happy to find the chief weight of his testimony is in favor of the *generally beneficial effects of the remedy in all stages of the disease.* When it failed to fulfill his most sanguine hopes and expectations, it still does not appear from his testimony that it ever proved *injurious.* This is farther than I have ever gone, though the observation is supported by the concurrent testimony of Dr. Austin Flint and others, who have used quinine freely in typhoid fever.

Dr. Boling appears to think it strange that I, after expressing the opinion that "the typhoid fever of the South is only one of the Protean forms of endemic malarious fever," should have restricted the use of quinine in its treatment, to the *early* or *forming stage*, when it is generally admitted, that in undoubted cases of malarious fever, this remedy may be used with benefit at a *much later stage*; and on this he endeavors to frame an argument against the correctness of my position. In reply, I am happy to state that Dr. B. himself, in the paper before us, has supplied me with all the evidence I might require on this point, as he gave it with benefit at quite a late stage; and so did Louis of Paris. If I have been called to any cases of continued fever, whether *typhoid* or *typhus*, within the last three years, or since I have been following the *abortive method of treatment*, (and it is but reasonable to suppose I *may* have had some,) so far as my memory serves me, I have not failed to cut them short, and therefore have not had an opportunity, if I were disposed, to give quinine in liberal doses so late as the 14th or 21st days of the fever; but since reading Dr. Boling's favorable account of its effects, I may make some trials at the Charity Hospital, where

cases are brought in at all stages of the disease. Now, my reason for insisting so strenuously on the necessity of giving the large doses of quinine and opium in the *early or forming stage* is based on the belief that at that time the disturbance of the system produced by the morbific cause is *chiefly*, if not *altogether*, *functional*, and that the important function of *innervation*, which to a great extent presides over and regulates all the others, is first and principally deranged ; and I know from experience that by promptly quieting the first general disturbance of the functions, which I have succeeded in doing to my entire satisfaction, by the remedies designated, the progress of the disease is arrested, and of course, all organic lesions prevented. Nearly all pathologists of the present day agree, that organic lesions are the *results* of diseased action, and not the *causes*, and hence the importance of arresting, if possible, the progress, not only of this, but of all fevers, in *the early and forming stage*. I have learned from multiplied experience, that this desirable object may be readily accomplished by the bold administration of quinine and opium, with the occasional addition of mild mercurials, in all the forms of fever that have been presented to my observation in this city, excepting *perhaps* the eruptive fevers ; and I have often seen these most happily controlled by the same means. I know not how far liberal doses of quinine may be useful *after* inflammation has become settled in a part, producing *organic lesion*. I confess I have not expected benefit from the remedy under these circumstances ; on the contrary, I think I have seen it do harm ; but Dr. Boling has published an interesting paper, in which he claims to have witnessed most beneficial effects from liberal doses of quinine in the "*inflammatory diseases of miasmatic districts*," such as Pneumonia, Bronchitis, etc., etc. ; and others have seen the same. Although, as Dr. B. supposes, I would give quinine in Bilious Remittent Fever at a much later period than that just dwelt upon, it would only be when I thought inflammation had not yet become firmly located and produced serious organic lesion. Under these circumstances I should certainly rely more confidently upon local depletion, calomel and opium, blisters, and the curative efforts of nature. But if it be granted that quinine may be given advantageously at *a later period* in Bilious Remittent than in Typhoid Fever, it would not invalidate the fact that it may be given *more profitably in the early or forming stage of both ;* neither would it afford any argument at all against their probable origin from a like *malarious source*. As before stated, however, we have the testimony of Dr. Boling himself, and others equally respectable, that quinine *may be given at a pretty late period of Typhoid Fever, often with benefit, and but seldom, if ever, do-*

ing any harm. The celebrated Louis gave quinine, from *eight to twenty grains a day*, after blood-letting, and at an advanced stage of the disease, and commends it more highly than any other remedy. But notwithstanding this favorable testimony to the efficacy of quinine in the advanced stages of Typhoid Fever, I am still of opinion that its chief merit rests on its *abortive powers*—in other words, that if given *early and boldly*, it will *cut short* the disease.

Dr. Boling thinks that every one particularly interested in the subject, who reads my remarks, must regret that I did not give the grounds upon which this conclusion is predicated, and is "led to infer that it is not based upon his (my) own actual observation." As my remarks were only appended in the way of a *note* to Dr. Fearn's paper, I could not then go more lengthily into the subject, but since they have been deemed worthy of consideration, I will take this occasion to discuss the subject a little more fully.

So much of the grounds as rested on the striking testimony of Doctor Fearn, has already been presented, and is certainly entitled to much weight. Among all the writers who have condemned this remedy, *not one*, so far as I have seen, has ever given it such a trial. Therefore, having implicit confidence in the veracity of Dr. F., I allow more weight to his testimony than to all I have seen opposed to it. As for "*my own actual observation*," I repeat,that for three years past I have *but seldom, if ever*, failed to cut short all fevers that have come under my care in the early stages, excepting some of the *exanthemata*, in which the effort was not made. Now, how many of these cases *were or would have been* Typhoid fever, it is impossible to say; but as some of them occurred under exposure and circumstances precisely such as gave rise to Typhoid Fever in others, who were attacked in the same manner, but were treated differently, I am led to infer that they were the same disease. But even if my position be *true*, how is it possible for me to prove it to the satisfaction of the skeptic? Dr. Boling "cannot think it possible that this malady, when established in a *recognizable form*, can be cut short by quinine." But what is this "recognizable form?" For here lies the *gist* of the controversy. If the advocates of the *specific nature* of this fever cannot recognize its existence before it has advanced so far as to present indubitable evidences of *extensive organic lesion*, I will not dispute with them as to the impracticability of their cutting it short. But the disease certainly *does exist for some days before organic lesion of any kind takes place*—at least such is the opinion of the best writers on the subject. Why, then, might it not be cut short in its early stage as well as any other idiopathic fever—Bilious

Remittent, for instance, which Dr. B. admits may be cut short by quinine? Those who insist on the uniform presence of what they term the "*anatomical lesion*" of Typhoid Fever, the inflammation and ulceration of Peyer's glands, should show that *this lesion actually constitutes the disease*, and that all the symptoms are referrable to it. Otherwise, they must abandon their position and admit that the aforesaid lesion, although so often met with, is but a *secondary link* in the chain of diseased action, and arises from some morbid condition that precedes. Since the explosion of the Broussaian pathology, there is hardly a single author of note who does not maintain that the organic lesions which take place in the course of idiopathic fevers are all *secondary* in their appearance; in other words, that the first effects of the *morbific cause* are displayed either upon the *blood* or the *nervous system;* that the first derangement of the general system is altogether *functional* in its nature; and that this derangement of function, if not corrected, leads to or causes the organic lesions that are found after death.

The able and judicious Dr. Watson, in his lecture on *continued fever* says—

"*He is sure it is an error to suppose*, as many pathologists do, that *the fever is essentially inflammation of those glands* (Peyer's) *and nothing else.*" * * * * "In the first place, if this doctrine were true, it would almost follow of necessity that the severity of the case and the intensity of the symptoms should be in proportion to the number, depth and extent of the ulcerations. But this is far from being so. In cases in which the symptoms have been of the worst kind, there have been found very few ulcerations, and those small and apparently insignificant. On the other hand, when the complaint has run a moderate course, but at length has terminated fatally, it is not uncommon to discover a frightful amount of disorganization in the ileum. But what is more conclusive is, that the occurrence of this inflammatory condition of the mucous follicles of the intestines is *not constant* in continued fever. If *one* well-marked instance of the disease should occur, without any trace of a morbid action having been going on in the mucous follicles, that instance would, of course, suffice to overturn the theory. But *scores* of such have occurred. I have seen many such myself; and other persons have seen more." (*Watson's Lectures.*)

Dr. Bartlett concludes a lengthy definition of Typhoid Fever with the remark, that "the disease differs from all others, in its causes, in its symptoms and in its lesions;" yet he strenuously maintains that the local lesion "is *not primary* but *secondary*; that instead of being the single cause and origin of the disease, it constitutes only one of its elements; and is itself dependent upon some other and ulterior morbid condition as *its* cause, the seat, nature and operation of which are not known to us." Some have thought that Louis maintains a different doc-

trine; but Dr. Bartlett insists that both Louis and Chomel support the doctrine here laid down.

Andral denies that the lesion of Peyer's glands is at all essential to the existence of Typhoid Fever. But I will not multiply authorities on this point, as there are others that deserve attention, and my paper is already getting too long.

If, then, the organic lesions which occur in Typhoid Fever are *not primary*, but arise from some preceding morbid condition of the system, the first evidences of which are evinced in *the general disturbance of the functions only*, I do not think it at all improbable that we possess the means of effectually cutting short the disease by the timely correction of this functional disturbance. In doing this, as Dr. Fearn and myself have done, chiefly by large doses of quinine, it may be denied that we were treating Typhoid Fever, because that disease was not "*established in a recognizable form;*" still I must insist that it is the best and safest course to pursue. I contend that it can be done by the method I have indicated, and none have a right to deny it, save those who have *tried it and failed.* That the accomplishment of this desirable object has been looked for with *hopeful expectation*, is plainly indicated by some of the best writers on the subject.

Louis, at the conclusion of his great work on Fever, says:

"The little success obtained hitherto, ought not to discourage the friends of science and of humanity, and induce them to believe that we shall never arrive at a treatment more appropriate to the disease we have been considering. Who could have foreseen the effects of opium, and of cinchona, and the preservative virtue of vaccination? Chance and observation have given rise to these powerful means of preservation: what chance and observation have done, they could do again, and doubtless they will do so; and therapeutics, as well as the other parts of our science, must expect every thing from observation."

Dr. Bartlett writes deploringly of "the unsettled and discordant state of the professional mind in regard to the therapeutics of Typhoid Fever," and concludes his chapter on *Treatment* as follows:

"We may hope that our treatment of the disease will yet become more successful and uniform; more exact in its application and more positive in its results. Many 'ministers and interpreters of nature,' faithful to their high vocation and competent to its duties, are zealously and patiently occupied in endeavoring to accomplish this end. Guided by a sound philosophy; relying upon the one great means of ascertaining the properties and relations of all forms of matter, inorganic or organic, that of observation, they or their successors may yet find, by persevering experiment or fortunate discovery, methods of modifying the living organization and of correcting its disordered actions, which shall give us much greater control over the disease than we now are able to exert." (*On Typhoid and Typhus Fevers.*)

Prof. Austin Flint, of Buffalo, New York, Editor of the Buffalo Medical Journal, has recently been publishing in succeeding numbers of that valuable work, "*Clinical Reports on Continued Fever*," which, in minuteness of detail, faithfulness of observation and philosophical inquiry, are scarcely at all inferior to the great work of the celebrated Louis. I am happy to learn that these valuable reports have been embodied in a neat volume, which is just issued from the press. Having read them as they appeared, I cannot too highly recommend the volume to the attention of the profession in the South. Let us see what Dr. Flint thinks of the *abortive treatment*. I shall take the liberty of italicising at pleasure. In his chapter on "*the management of Continued Fever*," he says:

"It has long been a mooted question, whether Continued Fever, when fully formed, can be broken up by any plan of medical treatment"—that "various measures for that end have, from time to time, been proposed, but, after a short trial, have ceased to be employed. This fact suffices to show that no reliable means for effecting the object have as yet been discovered; for, if any of the measures proposed were uniformly, or in a large proportion of cases, successful, their efficacy would hardly fail to prevent their falling into disuse. *The question must still be considered an open one.* An opinion on the subject is, of course, but conjectural. Until our ability to control the course of the disease is *demonstrated*, we can only judge as to the *probability* or *possibility* of the attainment, by analogy and speculative reasoning. *Both favor the expectation that a specific controlling remedy may, at some future period, be discovered.* Such a remedy has been found in the case of Intermittent and Remittent Fever, by means of which these forms of febrile disease are rendered amenable to art. Now, admitting that all essential fevers involve, as their primary fundamental pathological element, humoral changes due to the action of special poisons, is it too much to hope that the time may come when these changes shall have been successfully investigated, their character and relations to the poisonous agents well understood, and science arrive deductively at the knowledge of opposing or counteracting remedies?"

It seems that Dr. Flint made a limited or imperfect trial with *three* remedies, for the purpose of cutting short the fever, viz., *quinine*, *opium* and the *wet sheet*. It is much to be regretted that he gave the first of these so imperfect a trial. Nothing like the plan practised by Doctor Fearn, or that recommended by myself, was attempted to be carried out. The following is his account of it:

"In *two* cases, quinine was prescribed with a view to an abortive effect. In both cases, the fever was fully formed before the remedy was given. In *one* case, *twenty-four* grains of quinine were prescribed in twenty-four hours, on the first day, and twenty grains on each of the two succeeding days. It occasioned characteristic buzzing in the ears, but exerted no appreciable effect on the progress of the disease.

The duration of the fever in this case was eighteen days. In the other case, the dose given was three grains every six hours, which was continued for six or seven days. No appreciable effect was observed in this case; the duration being fifteen days. Both cases were of the typhoid type.

"In another case, on the first day of admission into the hospital, five grains of quinine were given and repeated twice, under the impression it was Remittent Fever. No appreciable effect followed in this case.

"I have repeatedly prescribed quinia in doses of four or six grains every four or six hours from the time patients came under treatment, and continued the use of the remedy in this way for several days, without observing any apparent influence on the disease."

Now, the only thing that surprises me is, that a man of Dr. Flint's well known ability—one who *ten years ago* wrote for the *American Journal of the Medical Sciences*, a valuable paper, in which he maintained that quinine, given in *single doses of* 15 *to* 30 *grains*, would seldom or never fail to cut short Intermittent and Remittent Fevers, without any previous preparatory treatment—should have offered the above as a specimen of *abortive treatment* in Continued Fever! I can only say that I should expect *no benefit whatever from the remedy thus administered.* Since my esteemed friend, Dr. F., has had the honor to be called to the University of Louisville, I do hope he will there take an early opportunity to give the remedy a fairer trial, and report the result.

Dr. Flint gave a fairer trial to his other *abortive* remedies, *opium* and the *wet sheet*, but yet exceedingly imperfect. He admits that the cases of trial were *too few* to authorize an induction, yet he thinks they *tend to support the presumption that they do possess more or less power to ameliorate the symptoms, and to affect both the duration and severity of the disease.*"

He then offers the following striking reflections:

"It is by no means improbable that various methods of treatment may be found to exert more or less control over the intensity and persistence of the morbid conditions upon which Continued Fever depends. This is the fact with respect to periodical fevers. In the latter form of fever, arsenic, strychnia, prussiate of iron, salicine, etc., are found to have each a specific influence, the quinia being superior to any. So, in Continued Fever, it should be, not only an object of inquiry, to ascertain a single plan of abortive treatment which may be, to a greater or less extent, successful, but to discover different methods; and finally, by comparisons, to ascertain their relative value and the circumstances upon which the efficiency of each depends. *Should science at length succeed in acquiring a special remedy, adequate to the objects of art in the management of this disease, as quinia is in the treatment of periodical fevers, it will certainly not be more extraordinary than that the latter should have been discovered; nor, prior to this discovery, were there stronger reasons for anti-*

cipating it than now exist with reference to prospective success in seeking for the means of controlling Continued Fever." (Italics mine.)

That is just what I say; but, in the name of conscience, let the *abortive* plan have something like a fair trial!

I come now to the consideration of a point of great interest; that is, the relationship which subsists between *Continued* and *Periodical* or *Paroxysmal Fevers*. I shall not attempt to discuss the abstract question of whether there is really *but one fever*, as was maintained by Dr. Rush, or that there is *no such disease as fever*, as is proclaimed at the present day by Prof. Bartlett; but will take it for granted that we all understand each other when speaking of the varieties of *fever*, and will endeavor to show that there really does exist a very intimate connexion between *Continued* and *Intermittent* Fevers. If I can prove this, it may serve in a great degree to reconcile the reader to the *abortive* plan of treatment which I am recommending in Continued Fevers.

The reader who will go to the trouble of examining the best authorities on Typhoid Fever will find that the disease bears a striking resemblance to Intermittent Fever in at least three respects:

1. It most generally commences with *distinct paroxysms*, *chills*, etc.
2. *The spleen is invariably found enlarged after death*—generally recognized before death.
3. The disease prevails mostly in *autumn*.

Louis says, that

"In patients who died of the Typhoid affection, 31 out of 33 subjects from whom he was able to learn any thing definite in relation to this point, had chills, and the whole of them, with merely six exceptions, from the beginning of the disease. * * Though often slight, they were severe and accompanied by trembling in a quarter of the patients." "Five of them had only one chill, but this symptom occurred more or less frequently in the others, in the cold as well as during the warm seasons. Fourteen of them had some, frequently the first eight or ten days; six for the space of from two to three weeks and more." * * * *In the patients who recovered*, all in whom the affection was *severe*, with the exception of three out of forty-five, had chills, or a great sensibility to cold. Six experienced the latter. Nine had a single chill. Chills returned many times during a space of from eight to fifteen days in the others, in the same circumstances as in the subjects who died," etc.

These chills, Louis says, were followed by heat and perspiration. In his 44th Observation, he says the disease "began, to a certain degree, like a quotidian fever; the chills returned regularly during eight days." On the fourth day, 8 grains of quinine were prescribed, which promptly arrested the chill; but this remedy was suspended, and the patient died on the 16th day.

Dr. Bartlett says, "The disease is attended at its commencement with chills or rigors, not commonly very severe, and usually repeated at uncertain intervals for the first few days."

Prof. Flint, in his second Clinical Report on Continued Fever, says of *chills*—"In twenty-one cases of the *typhoid type*, the histories state distinctly that chills were, or were not present. And of this number of cases, one or more chills marked the access in all but *one* case, *i. e.* in *twenty cases.*" The chills were followed by increase of heat in *twelve* out of the fifteen cases in which this symptom was noted; and there was *perspiration* in *ten.*

Any amount of testimony could be adduced to substantiate this point, but I have neither time nor space. Let us come nearer home. It will be recollected that Dr. Boling makes the following admission: "In some cases the disease, as it appears with us, presents somewhat of an acerbative character; *more so, it is probable, than at the North.*" If the latter supposition be true, the point may be considered *settled*—judging from the testimony previously given. But Dr. Gibbs, the first writer quoted by Dr. Boling, speaks of "*the decided periodicity and the mixed nature*" of many of the cases that came under his observation. In short, so far as my information extends, such is the general character of the disease at its commencement, throughout the Southern country. I can at least assure Dr. Boling that this corresponds entirely with my "*own actual observation.*"

Let us now look to the second point of coincidence between Typhoid and Intermittent Fevers, viz: *the enlargement of the spleen.*

Louis found this organ in its natural condition *only four times in forty-six examinations.* (*Op. Cit.*) It was generally enlarged and frequently softened.

Dr. Bartlett says, "The spleen is almost always more or less altered in its appearance. The most constant change consists in an *augmentation* of its volume. In many cases it is *three or four times as large as it is in its natural state.* It is also very much diminished in consistence."

Dr. William Jenner, Professor of Pathological Anatomy in University College, London, has recently published some valuable observations on Typhoid and Typhus Fevers, in which he attempts to determine the question of their *identity* or *non-identity* by an analysis of the symptoms and appearances after death. I find the following quotation from him in the work of Dr. Flint. In a "*synopsis of morbid appearances in sixty-six cases,*" I find the following remarks respecting the *spleen.*

"This organ was enlarged in all the cases of Typhoid Fever—softened in one third of the cases only. Before the age of 50, it was as large after Typhus as Typhoid Fever; after that age, it was decidedly smaller in the former than in the latter affection."

I will not multiply quotations on this point; suffice it to say there is a general concurrence in regard to it.

On the 3d and last point of coincidence, *i. e.* the greater prevalence of Typhoid Fever in the autumnal months, I shall not insist so strenuously, though it is by no means wanting of testimony. Dr. Bartlett says:

"It is by no means settled whether Typhoid Fever occurs, with any degree of uniformity, more frequently in one season than another. The common impression, I think, in New England is, that it prevails oftener in autumn. Dr. James Jackson says, expressly, that such is the fact; although he admits that it may be seen any month of the year. * * * * I am very sure, however, that as a general rule its annual prevalence is greatest in autumn. In New England it is not unfrequently called the *autumnal or fall fever.*"

On this point, Dr. Flint gives the particulars of twenty-nine *Typhoid* cases and ten of *Typhus.* After giving the results, he thus concludes:

"These results accord with the more extended observations from which it has been deduced, that while *Typhoid* Fever is much more liable to occur in the autumnal than in the other months of the year, *Typhus* occurs irrespective of season."

I think it is well known throughout the Southern and Western States, that in sickly years, the cases of fever which occur late in autumn have a much stronger tendency to take the *continued type* than those which occur earlier. Even the Yellow Fever of New Orleans, in October and November, not unfrequently runs on to the 15th day.

In respect to the relationship between Continued and Intermittent Fevers, I would invite the reader's special attention to the following extraordinary conclusions of that cautious and faithful pathologist, Louis. After carefully comparing all the prominent symptoms that belong to the Typhoid affection with analogous ones in Intermittent Fever, Louis says:

"*Thus the morbid changes in organs and functions observed during the course of continued fever were observed, likewise, in those which were intermittent. The difference consisted in hardly any thing more than degree.* A rather large number of patients had pains in various parts of the abdomen, diarrhœa, nausea, vomiting, redness and dryness of the tongue, redness and pain in different parts of the fauces, connected in some cases with very marked swelling, many species of eruption upon

the surface of the body and on the lips, anxiety, delirium; so that whatever was the cause of the febrile action, continued or intermittent, we see it always accompanied by derangement of the same functions, changes in the same organs; and this connexion or dependence must appear the more evident from the fact that the alteration of the functions was frequently limited to the time the access continued."

These conclusions of Louis are based on the minute observation of about forty cases of Intermittent Fever, for the purpose of comparison. His Translator, Dr. Bowditch, objects to the inference from the above remarks, that Louis thinks Typhoid and Intermittent Fevers are of the same nature; but I cannot see what other meaning is conveyed by his words.

A great deal more might be said on the subject, but I am afraid of wearying the reader. I trust I have already said enough to show, that although no standard authority admits that Typhoid Fever can be cut short by any method of treatment they have seen practised, yet they evidently think it *not at all improbable* that some successful plan *will* be discovered for the accomplishment of this desirable object; and that the plan proposed by the writer is supported by *reason and analogy*, as well as by some *experience*. I do not contend that this is the *best* or the *only* plan; but merely that it *may* be done in the way I have indicated. I would not advocate a *kill-or-cure practice* in any disease; for experience has taught me that *much* may be expected from the *efforts of Nature*—that we should follow her indications and aid her efforts, but be extremely *cautious* in the use of those remedies, which, if they fail to do good, may do irreparable injury.

Dr. Watson says he agrees with Pitcairn, who, being asked what he thought of a certain treatise on fevers, declared, "I do not like fever curers. You may *guide* a fever; you cannot *cure* it." Yet Dr. Watson, a few sentences previous, had laid down the doctrine that "the proper view to take of *fever* was that which the Toxicologist would take. The disease is produced by a *poison*, of which the injurious impression upon the animal economy at length ceases, or passes off, of itself; in the same manner, only more slowly, as the influence of a dose of opium will spontaneously pass away. But during the natural course of the fever, as in many cases of poisoning, *morbid processes are apt to be set up, which, if suffered to proceed unchecked, would inflict irreparable injury upon important organs, and which are fairly within the scope of remedial agency.*" Now, with due deference to this high authority, I must insist, that if the method proposed by me *will* promptly cut short those morbid processes in the early stage of fever, which, if suffered

to proceed, would inflict irreparable injury to important organs, (as I firmly believe it will,) it is exactly equivalent to *curing* fever; and so far, I am in favor of *fever-curers*.

Much might be said respecting the *essential nature of the causes* of Continued and Paroxysmal Fevers; some supposing them to be entirely different; the former having an *animal* origin, and *always contagious*, the latter a *vegetable* origin, and seldom or *never* contagious; but I am compelled to forbear for want of space. The question is still a mooted one, and far from being settled. So far as this question involves the *propriety* of the abortive treatment, we have so lengthily discussed—seeing that Typhoid Fever has spontaneously sprung up in all parts of the Southern country where endemic malarious fevers prevail, and believing that it is equally controlled by the same remedies, I am irresistably led to the conclusion that its origin or cause is *essentially* the same, though modified by circumstances.

It may not be generally known that the distinguished Dr. John Armstrong, who wrote on Typhus and other fevers, after contending for years that Typhus Fever was exclusively of *animal origin and always contagious*, lived to discover his error, and like our immortal Rush, had the magnanimity to confess it. In the Appendix to his great work on Typhus, he said he was convinced that he had seen genuine *Typhus Fever* spring from the same causes that give rise to Intermittents and Remittents. Dr. John Bell, in his Lectures, (*Bell and Stokes' Practice*) says: "Whatever importance may be attached to this opinion (of Dr. Armstrong) in Great Britain, and I believe that it does not obtain much favor there, it comes nearer an explanation of the typhoid form of fever, by which I mean that resembling typhus, that we meet with in the United States, than the commoner one of contagion by specific virus or animal poison."

In a very able paper by Dr. G. A. Ketchum of Mobile, "*on Periodicity in Disease*, in the last volume of the *Proceedings of the Alabama State Medical Association*, I find the following confirmatory remarks: "From the facts we have stated, and the authority which abounds on almost every side of us, the conclusion is forced upon our minds, that *all fevers, whether of the* STRICTLY INTERMITTENT, *or mere continued variety, constitute at bottom and by their true nature, the same disease—that they differ only by their type. For we know that they all can be reciprocally transformed, the one into the other, and that we may see the same attack assume the intermittent, the remittent, or the continued form* and that almost invariably when the disease assumes a threatening or

grave aspect, whatever may have been its type at the commencement, it will assume the continued form for some time before its final termination. Again, we see that the same cause will develop the intermittent or the continued form, the character and peculiarities of the individual determining the one or the other."

I am happy to find myself fully supported by this able practitioner, in all my views respecting the origin and relationship of fevers, as well as the *abortive* powers of the sulphate of quinine.

With a brief allusion to *one more* of Dr. Boling's remarks, I will close. He says:

"I am inclined to think that Dr. Fenner does not differ much more from the profession generally, in his opinion that Typhoid Fever may be cut short and permanently arrested in its course by quinine, than he does in his recommendation of calomel, in this malady, as a general practice, in the dose of ten grains. Judging from my own experience of the disease, as it has prevailed here for the last two years, I would say, that few cases indeed occur, in which a single ten grain dose of calomel would not exert a prejudicial influence; and that administered generally, it would have the effect of increasing the mortality at least three or four per cent."

The remark of mine that called forth this criticism is as follows: "If the practitioner is not sufficiently familiar with the action of quinine in large doses to venture on from 20 to 30 grains, in combination with one or two grains of opium and *perhaps* ten grains of calomel or blue mass, at one dose, and within two or three days of the attack, we would advise him not to tamper with this remedy at all."

It will be seen that I do not recommend the 10 grain doses of *calomel* as a "*general practice*;-but merely intimate that it may sometimes be a valuable addition to the quinine and opium in the early stage of the fever. I am of the same opinion still, notwithstanding the expressed *apprehensions* of Dr. Boling, who, it seems, has not given this remedy even so fair a trial as he did the quinine. So far as I have looked, I find that nearly all writers on Typhoid Fever recommend *mercury in some form*, and the latest Essayest I have seen, Dr. Cain of Charleston, places his chief reliance upon it. But I only recommend it as an *assistant abortive* remedy, to be given in the early stage of the fever.

Here I am compelled to stop, though feeling that I have done nothing like justice to the subject. I sincerely hope I have said nothing in this

paper that can be in the slightest degree offensive to my esteemed friend Dr. Boling, and beg leave to thank him for the attention he has directed to my peculiar views.

IV.—CAHAWBA, ALABAMA—ITS PREVALENT DISEASES—VENESECTION IN CONGESTIVE FEVER—TYPHOID FEVER, &c.

A. Hester, M. D.

Dear Sir—We have had a more sickly summer in Cahawba and vicinity than for many years past. I attribute it to the heavy and frequent rains that fell in July and August. Fevers of almost every type have prevailed amongst us—Bilious Remittent, every form of Intermittent, and different grades of Typhoid, and also one case of Congestive. Bilious Remittent and Congestive had formerly been the prevailing type of malarial fevers with us, but for several years past it was exceedingly rare to meet with either. Summer had become our healthy months, and warm weather was looked for with almost as much anxiety as were formerly the frosts of October.

This year, however, Bilious Remittent has been the prevailing type. It was characterized at the commencement by a well marked chill, or sometimes by only chilly sensations, succeeded by hot and dry skin, full and bounding pulse, thirst, restlessness, pain in the back and head. The tongue was generally coated with a yellowish fur; sometimes, however, it was whitish, with red edges; sclerotic coat yellowish; urine high colored and small in quantity. These were the most prominent symptoms which marked this form of the disease. A free, spontaneous vomiting of bile occurred in some cases.

The treatment of the above form of fever was simple and remarkably successful. An antimonial emetic was given, followed by an active cathartic, in which calomel was a main ingredient. This was succeeded by 4 or 5 grain doses of quinine. Sometimes, when there was great restlessness and nervous irritability, nitrate of potash, in 10 grain doses, with three or four of Dover's Powder, was combined with the quinine. After a few doses had been administered, at intervals of two hours, free sweating supervened, the fever went off and did not return. In cases where emesis occurred of itself, it was promoted by copious draughts of warm water, with great relief and benefit to the patient.

The case of Congestive Fever alluded to above, was characterized

by great coldness of the whole surface, except the upper portion of the chest and head, excessive restlessness, irregular respiration, or the frequent efforts "to get a long breath," an occasional expiratory effort, with a whistling sound, as of one greatly fatigued from violent physical exertion; the patient complained of great oppression. The tongue was shrunken and of a slightly bluish cast; the stomach was exceedingly irritable, a small portion of cold water being rejected in a few minutes after being swallowed; the pulse was small and 130 in a minute. I was informed that the patient had been in this condition for 12 or 14 hours. The bowels were constipated. I administered several remedies with a view to allay the irritability of the stomach; they were rejected almost as soon as swallowed. I cupped him freely over the region of the stomach; applied sinapisms with hot mush poultices, smeared over with spirits turpentine—all had no effect in calming the sick stomach or bettering the condition of my patient. Finding that no internal remedy was available, and that external ones had done no good, and believing that my patient could not remain long in this state without some serious lesion supervening, which would destroy him, I resolved to take blood from the arm, with a view to restore the lost balance of the circulation. I was the more ready to hazard this remedy from the fact that my patient was in the prime of life, vigorous, of sound constitution, and in fine health previous to his present attack. I opened a vein; the blood was very dark and thick at first; after about a pint had been taken he remarked, "I can now get a good breath." His pulse became fuller and slower. When he had bled about a pint and a half I arrested it. He remarked that he felt as if a great load had been taken off of him. The surface became evidently warmer, and the patient was more composed. I had his feet and legs put in a tub of hot water and mustard, and kept in for an hour, occasionally adding hot water, to keep up the temperature. During this time he became very hot, and his stomach became quiet. I now commenced the exhibition of 4 grains calomel, 5 of quinine and one eighth morphine, every two hours. After two or three doses free perspiration followed, and the bowels were acted on. The quinine was kept up at longer intervals for twenty-four hours; his fever went off and did not return. He convalesced very rapidly.

I would by no means be understood as advocating the use of the lancet in all such cases. I resorted to it as a dernier remedy under almost desperate circumstances. In this case it was evidently the means of unloading the internal blood vessels, and diffusing the blood to the surface.

I find that my letter has grown to a much greater length than I intended. I have treated this spring and summer some twelve or thirteen cases of Typhoid Fever, with but one fatal termination. I may on some other occasion say something in regard to their character and treatment.

Most respectfully yours,

J. A. ENGLISH, M. D.

V.—HISTORY OF THE MISSISSIPPI STATE HOSPITAL AT NATCHEZ.

BY C. S. MAGOUN, M. D., PHYS. AND SURG.

On the 20th of November, 1804, a circular was issued by seven of the medical practitioners of Natchez, to the inhabitants of the Mississippi Territory, setting forth the necessity of a Hospital for the suffering and destitute, and soliciting subscriptions and donations for this purpose. They offered their gratuitous services, as might be required, and called a public meeting of all those interested, or willing "to give encouragement to the proposed institution, to meet at the City Tavern, in Natchez, on Saturday, the 22d day of December, 1804," to memorialize the Legislature on the subject. The names of the Physicians making this call, and taking this initiatory step, were as follows:

Doria Latimer,	G. C. Pendergrast,
Wm. Lyon,	Joseph Mecrery,
James Speed,	Andrew Mecrery,

Frederick Seip.

The meeting was held in accordance with the call, and a memorial addressed to the Legislature on the subject.

In the following month, January 18th, 1805, an act was approved, "To establish a Hospital in the city of Natchez, and for incorporating Trustees of the same." The following is the preamble and first section of the act of incorporation:

Whereas great numbers of sick and distressed boatmen, employed in the navigation of the river Mississippi, and other indigent persons, destitute of the means of procuring medical assistance, are found in the city of Natchez and other parts of this Territory, for the relief of whose wants private charity and present legal regulations are inadequate, and subscriptions to a considerable amount having been raised, and the sum of one thousand dollars bequeathed, by the late George Cochran, Esq.,

for the purpose of establishing a Hospital in said city. And whereas David Latimore, Garret E. Pendergrast, William Lyon, Joseph Mecrery, James Speed, Andrew Mecrery, and Frederick Seip, physicians of that place, have humanely proffered their professional services gratis, for the benefit of such an institution.—

Section 1. Be it therefore enacted by the Legislative Council and House of Representatives of the Mississippi Territory, in General Assembly convened, That there be erected and established in the city a Hospital for the reception and relief of indigent boatmen, and other paupers of every description in this Territory, who may be in want of medical aid and assistance, and who, if without the limits of the city, may be sent thither by the order of any justice, at the expense of his proper county, to be called and known by the name of the "Natchez Hospital," to be under the care, government and regulation of a body politic and corporate, as hereinafter provided.

Section 8th provides for an annual appropriation of one thousand dollars for five years.

The Trustees, as designated in the act of incorporation, met for the first time in the Court House, on the 12th day of April, 1805. After being organized, the following resolution was passed:

"Resolved, That a committee of three be appointed to examine and report a place most eligible for fixing the Hospital, and also to report a plan for the building, and the quantity of land that may be necessary for the garden and burial ground."

At the next meeting, 19th of April, the committee reported. Having selected the grounds now occupied by the Hospital, they were instructed to negotiate and procure the same from Maj. Stephen Minor. No other meeting was held this year. On the 8th day of April, 1806, a meeting was convened, and rules and regulations adopted for the government of the Board.

The committee on the purchase of a site for the Hospital, report that they had bargained with Major Minor for six acres of ground, at six hundred dollars, which was approved, and the committee authorized to confirm the purchase. At this meeting a committee was appointed to receive proposals for building the proposed Hospital, according to such plan as the committee might approve.

The next meeting took place on the 1st of October, 1807. The committee on proposals for the building did not report, but a memorial was made to Congress, praying for aid in carrying into effect the object of the corporation. Here the matter rested, so far as we know, till December 9th, 1811, when the Trustees held a meeting, and a committee was appointed to "memorialize on the subject of an endowment to the institution, which committee reported, and submitted a memorial to Congress, which was adopted December 16th, 1811. In the fall of

this year another meeting was held, and the committee again charged with the duty of closing the contract for a site for the Hospital. A plan of the contemplated building was also before the Board, and it was adopted. Friday, the 18th day of June, 1813, the plan previously adopted was rescinded, and one adopted in the place of it of smaller dimensions, and which was the plan of the present main building. Proposals were submitted to the Board, July 17th, 1813, for erecting the building, and in December following various contracts were entered into for the erection of the Hospital; and during the year 1814 it was in process of erection. Up to this time the Trustees had the appropriations of the Territory; also five hundred dollars from the State of Tennessee, one or two legacies, and the funds arising from the license of biliard tables in the city of Natchez. The Trustees met on the 21st of August, 1817, and resolved that the Hospital be provided with a matron, servants, and all requisites for the reception of patients. No mention is made further in the records till the 3d of August, 1819, when it was unoccupied, and it was given up to the overseers of the poor, for the purpose of carrying it on. The Trustees resolved "to enclose the lot and procure a supply of water by digging a well or cistern," and to repair and furnish the building, so as to go into operation. How long this arrangement lasted is not known; but on the 6th of August, 1821, at a meeting of the Trustees, it was resolved, "That the use and possession of the Natchez Hospital and the furniture therein, be granted, for the term of six months, to Dr. Perlee, and others associated with him, for the purpose of taking care of such sick and infirm persons as they may deem fit subjects for the Hospital." Resolutions were also passed making the necessary provision for carrying it on. The Trustees, February 27th, 1822, returned a vote of thanks to Dr. Perlee and others, for their humane, skilful and gratuitous services during the past six months; and the physicians of Natchez were invited to continue such services.

The first medical account given of the institution was made by Dr. Perlee, the attending physician, on the 11th of July, 1822. It was approved, but not put upon the record, so that no knowledge of its contents can be known.

A resolution was adopted July 6th, 1822, admitting to the benefits of the Hospital all sick and needy persons, not citizens of this State. On July 9th, 1823, we find that Dr. Perlee had resigned the office of President of the Board and Physician, and removed to New Orleans. The Trustees returned to him a vote of thanks "for his unaided and

gratuitous services at the Hospital," etc., and invited the medical faculty to afford medical assistance, under such regulations as they might prescribe. In response to this invitation, at a meeting of the Board a few days after, Drs. Gustine, M. and W. Pedran, Chew, Denny, Merrill and Watkins, offered their professional services gratis for the season, which were thankfully received.

This year the city was visited by the most appalling and fatal epidemics ever known. Nearly one third of the entire population fell victims to the disease. Many persons fled ; all business was suspended. The Post-office, Bank, etc., were temporarily removed to the country. Large numbers died in the Hospital, and all its available means were exhausted. Subscriptions were raised in this region and New Orleans to sustain it. Some time after this the Hospital was closed. The Trustees, at a meeting held March 12th, 1825, resolved, "That the Hospital be rented to Capt. R. Wash, for the use of the United States, at the rate of thirty dollars per month."

From the last date there is no record extant of any meeting of the Board of Trustees till March 15th, 1836, being a lapse of ten years. At this meeting Dr. E. P. Pollard was elected physician for the term of six years. The Legislature, February 5th, 1836, amended the act of incorporation in many particulars, giving full and unlimited powers to the Trustees to have the Hospital conducted in such a manner as they might deem best, and increasing the number of Trustees from seven to seventeen. A meeting of the Trustees was held March 26th, 1836, at the Mansion House, and the committee appointed at a previous meeting, reported as follows : The committee appointed to examine the present state of the Natchez Hospital report, that they have visited the building, and find it in a most ruinous condition, entirely perverted from the intention of its original founders, used as a pest house, and occupied by negroes," etc. At this meeting John Henderson resigned his office of Treasurer, and membership in the Board, "owing to the infirmities of age ; having served nearly thirty years." He also paid over to the Trustees the balance in the treasury, amounting to $7,295 66. A committee was appointed to have the Hospital repaired, the grounds fenced in, etc.

What time the Hospital was opened this year is not stated; but the resident Physician and Surgeon made a report, which was agreed to. At a meeting January 3d, 1837, the following resolution was adopted: Resolved, that the salary of the Physician and Surgeon of the Natchez Hospital be two thousand dollars per annum from the time he took

charge of the institution, and that it be paid quarterly. An act to change the name of the Natchez Hospital and for its relief and benefit, was passed February 14th, 1839, changing its name to the Mississippi State Hospital at Natchez, and making an annual appropriation for three years of five thousand dollars. Section 2d of the same act constitutes the Mayor of the city of Natchez President ex-officio of the Board of Trustees, and requires an annual report to be made to the Governor of the State.

Meetings of the Trustees were held several times in the years 1839 and 1840. In January, 1841, the Trustees had ordered the Physician and Surgeon to admit no more patients, and appointed a committee to confer with the overseers of the poor to take the patients then on hand in the Hospital. The Physician and Surgeon, E. P. Pollard, offered to take the Hospital on his own account, which the Trustees accepted. About this time the Hospital was again closed, its resources all exhausted and largely involved in debt. The State appropriation had ceased to flow into the treasury, and the Hospital was dependent for resources upon the city licenses to retail spiritual liquors. The Trustees held a meeting January 27th, 1844, and resolved, "That D. H. Lane be permitted to use the Hospital and grounds as a private residence, until such time as the Trustees might need it, upon condition of taking satisfactory care of it.

The Trustees again met in May of this year, and appointed a committee to afford relief to proper diseased objects of charity, and report to the Board the names of all relieved, and the amount expended on each. The committee in July reported thirteen relieved, costing in the aggregate $124 75.

The next meeting was held August 10th, and it was resolved "To open the Hospital, and to employ a Steward, Physician and Surgeon,' etc. The Treasurer reported upwards of two thousand dollars in the treasury. Dr. F. A. W. Davis was elected Physician and Surgeon, and commenced his duties August 15th, 1844, at which time it "went into full and complete operation."

October 3d, 1844, was the regular time of holding the quarterly meeting of the Trustees, and the Executive Committee reported, from which we make the following extracts: "Twenty-seven patients have been admitted since the 15th of August. Of these fifteen have been discharged cured, six have died, and six are now remaining in the Hospital." This is the first showing upon the records of any medical report, notwithstanding the records of the institution date back fifty years.

The whole number of patients admitted to the close of the year were as follows: Admitted fifty-five; died eight. Discharged cured forty-five; not cured one, and one remaining. Thirty-two were born in foreign countries. The Hospital was conducted on the plan upon which it was first opened, for the years 1845 and 1846, and Dr. Davis was continued as Physician and Surgeon. The salary was fixed at one hundred dollars per quarter, or four hundred dollars per annum. In the year 1845 there were admitted ninety-two; discharged cured sixty-five; died six. Born in foreign countries forty-eight. In the year 1846 there were admitted one hundred and fifty-three; discharged one hundred and seven; died forty. Most of the mortality this year occurred among the sufferers from the steamboats "Queen City" and "Maria;" a large portion of whom were emigrants. In the year 1847 the Trustees entered into new arrangements for conducting the Hospital. Proposals were received from Dr. L. P. Blackburn to take the entire charge of the institution on his own account; receiving from the Trustees the receipts accruing to the Hospital from the sale of licenses in the city of Natchez. This plan of arrangements, with slight alterations, has been continued up to the present time. The Physician and Surgeon has been permitted to receive pay patients, under the restriction that they must not interfere with the welfare of the charity patients. The allowance received from the Treasurer has varied from twenty-five hundred to thirty-five hundred dollars per annum. Quarterly reports are made by the Physician and Surgeon to the Trustees, and since the previous date, no interruption has taken place in the management of the institution.

In the year 1847 were admitted 146; discharged 132; died 12. The Legislature, in 1848, made an appropriation of four thousand dollars for enlarging and improving the Hospital. A part of this amount was expended in building a wing to the former edifice, and making necessary repairs. Number admitted this year 176; discharged 158; died 16. In 1849, admitted 256; discharged 185; died 35. In 1850, admitted 234; discharged 184; died 21. In 1851 were admitted 257; discharged 206; died 23.

Since the re-opening of the Hospital, August 15th, 1844, to the close of the year 1851, there has been admitted 1399. The deaths amount to 171—making the per cent of mortality 12.232.

During the present year the Trustees have thoroughly repaired and put in good order the building, and added new furniture. The Hospital has good accommodations for twenty-five patients. The Executive

Committee in their last report, April 1st, 1852, make use of the following language: "The committee find the Hospital in a clean, neat, and really satisfactory condition."

It will readily be perceived by the foregoing brief sketch of this institution, that it has undergone many vicissitudes and changes, and oftentimes struggled hard for the means of support. It is now free from debt, and its annual income promises to be ample to keep it in successful operation for years to come. Its records are deficient; and much medical history that should have been preserved is forever lost. The institution is becoming venerable with age, compared with similar institutions in this part of the country; and its present directors appear to be actuated by an ardent desire to make the institution worthy of the place, and a lasting blessing to the suffering sons of want, from whatever land they come.

VI.—THE MOTIVE POWER OF THE BLOOD.

BY ALBERT WELLES ELY, A. M. M. D., NEW ORLEANS.

Since writing my first paper on this interesting subject, in the July number of the New Orleans Medical and Surgical Journal, I have had the pleasure of reading five articles on the subject from the pen of Dr. Samuel A. Cartwright, four of which were partly in reply to my first paper. I now propose to review briefly these last five papers of Dr. Cartwright, for the purpose of discovering what progress has been made towards establishing the very singular theory of Dr. Cartwright and Mrs. Willard, that "the chief motive power of the blood is located in the lungs and derived from respiration;" or, as stated by Dr. Cartwright, "that a hæmatokinetic power is generated in the lungs by respiration sufficient of itself to propel the blood through the pulmonary veins to the heart, and from thence, with or without its help, through the arterial system."

Dr. Cartwright continues to assert, without having invalidated any of the proofs of the utter untenability of his theory, given in my first paper, in July, and without adducing any new proofs in support of his position, that his theory is nevertheless correct; and that his alligator experiments, the microscopic observations of Prof. Riddell, and also the case of the child reported in the last number of the New Orleans Medical and Surgical Journal, have completely silenced his opponents. He

claims a victory over all, and attempts to convey the impression that his alligator experiments have nearly if not quite settled the question.

We have been hesitating some weeks about the propriety of replying to the papers of Dr. Cartwright, on account of the manner in which he attempts to meet the arguments brought against his theory; but our high regard for Dr. Cartwright, and the fear that he might construe our silence into something like disregard, not to say contempt, of his paper, have induced us to resume the subject.

It is quite unnecessary for me to remind my worthy and distinguished opponent, that the tone and manner of his four last papers, both in the Boston Medical and Surgical Journal, and in that of New Orleans, are entirely unsuited to grave, scientific discussion. Let brawling politicians indulge in sarcasm, irony, ridicule and broad assertion, if they choose; let them issue their "bulletins of victory," declare one another *hors de combat*, "unhorsed," "put down," "in the woods," "in captivity," etc., as much as they please—for such seem to be the legitimate weapons of political warfare—but never suffer them to be taken up in the cause of pure science. Such things are quite out of place in scientific discussion. Ridicule and irony prove nothing but a want of facts and sound argument. They are quite unknown to science.

Hoping that our friend, Dr. Cartwright, will take this gentle rebuke all in good part, we will now resume our subject.

Speaking of Dr. Hester's remarks, Dr. Cartwright observes, that Dr. Hester "had not heard, when he wrote them, of the experiment with the battle-ground crocodile, on the 18th of June, and did not know that *la grande dragonne*, on that occasion, had thrown the renowned knight, Dr. B. Dowler, from the saddle, and that he and his whole command were in captivity." By these words it is evident that Dr. Cartwright intends to convey the idea, that the experiments of the 18th of last June were completely successful, and had prostrated all his opponents. Now, nothing is farther from the truth than this, if we may believe credible *eye-witnesses* of those experiments. Those experiments were a perfect failure; and went directly against Dr. Cartwright. We have conversed with Dr. B. Dowler several times on the subject, and have also examined the copious notes which he made immediately after the experiments were closed. The experiments, too, were made by Dr. Dowler's own hands, and therefore we must give credence to his statements. The facts were these: Dr. Cartwright, having seen the alligator of the 6th of May come to life with a ligature about its trachea, contrary to his views, resolved to make another experiment, for the purpose of showing how he could kill an alligator by ligation of the trachea, and

then bring it to life again by insufflation, thus establishing, as he supposed, Mrs. Willard's theory. Accordingly, on the appointed day, he invited to witness the experiments some fifteen gentlemen, including, as he states in a letter to myself, "a sprinkling of preachers." The trachea being tied, the animal appeared to die very soon, as in the case of the 6th of May. The next thing was to bring it to life by insufflation, but in this the failure was complete. Dr. Cartwright was greatly mortified, and many of his friends present regretted exceedingly the failure on his account.

In his article of the 25th of August, in the Boston Medical Journal, Dr. Cartwright seems to labor to conceal the fact, that the restoration of the animal by insufflation was a principal object of the experiment, and speaks as though he did not expect confidently that result himself. We are credibly informed that he did. He ascribes the failure to the lungs having been cut into and lacerated. Dr. Dowler, who performed the dissections on the occasion, declares that the lungs were not cut—that they were entire when the inflation commenced, and that they were lacerated by the violence of the insufflation only. But even admitting that the lungs were cut open, this ought not to have defeated the restoration, according to Dr. Cartwright's own statements, in relating the previous experiment of the 6th of May. In that experiment he says the animal came to life *because the lungs were cut open!* His words are these: "The trachea was then untied and an attempt made to inflate the lungs, when the *cause* of its resuscitation was discovered; in opening the thorax *the lungs had been pierced in two places.* * * These vents served, no doubt, to give vent to the poisonous carbonic acid retained in the lungs when the trachea was tied. When the lungs were cut into, the carbonic acid escaping had the same effect in restoring animation, as if it had been removed by artificial respiration."* The lungs, however, were not cut, as we are informed.

According to the above, the cutting of the lungs, in the 18th of June experiment, ought to have aided restoration; and thus is the explanation given by Dr. Cartwright of the failure on the 18th of June, shown to be incorrect, or at least inconsistent with his own words.

Nor was the experiment of the 18th of June by any means conclusive as to the question, whether ligation of the trachea will or will not kill the alligator; for to decide that question the experiment was not

* Boston Med. and Surg. Jour., June 16, 1852.

properly made. The animal was all "cut to pieces" in less than an hour after the trachea was tied, and therefore could not be expected to revive. The only correct way of settling the question would be, to simply tie the trachea and then leave the animal in his den for a day or more. We do not, however, attach any importance to the question, as regards its bearing upon Mrs. Willard's theory. Admitting that the ligation of the trachea will speedily kill the alligator, that fact would merely prove that the animal, like all others, cannot live without air ; and not, as Dr. Cartwright supposes, that air inhaled into the lungs causes the blood to circulate.

In regard to the case of the child, restored by artificial respiration, we need not add any thing more, as we have given a full account and explanation of the case in the last number of the New Orleans Medical and Surgical Journal. Dr. Cartwright, however, claims a complete victory for his imaginary agent, "hæmatokinety," on the strength of that case ; but he forgets to show how the case proves his theory. Mere assertion will not do. He also claims a victory for "hæmatokinety," from the microscopic observations of Prof. Riddell ; but does not even attempt to show how those observations prove his theory. Dr. Cartwright five times, in his strange article in the last New Orleans Medical Journal, triumphantly asks, "What is hæmatokinety?" We can easily answer this question: Hæmatokinety (αιμα et κινεω) is an imaginary creation of Dr. Cartwright's brain, so far as all facts, as yet adduced, prove any thing. We do not wish to be severe upon Dr. Cartwright, but it is now time to deal with facts. It avails nothing to Dr. Cartwright to deal in broad assertions, so long as he does not accompany them with the demonstrative, or at least corroborative facts. I am ready at any time to declare myself a convert to "Hæmatokinety," whenever Dr. Cartwright will produce the indisputable facts necessary to establish that new principle.

Dr. Cartwright repeats his former assertion, that there are 12,000 species of fishes that have no left ventricle. "Although it is known to naturalists," says he, "that of the 12,000 species of fishes not one has any muscular organ answering to the left ventricle of animals, the able professor so ingeniously worded his criticism as to lead the uninformed to believe that something like a muscular organ, corresponding to the left ventricle, actually exists in fishes to propel the arterial blood. He took no pains to show that the bulbus arteriosus was on the right side, and not on the left—a mere appendage of the right and only ventricle

fishes have got—and that there is no muscular organ at all to circulate the red blood."*

How much truth there is contained in this short extract from Dr. Cartwright, will be apparent to all on reading the following quotation from Cuvier, the highest authority, as Dr. Cartwright admits. Speaking of the circulation of the blood in fishes, Cuvier says: "The blood is brought to the gills by the heart, which thus answers to the right ventricle of warm-blooded animals; and from the gills it is sent to an arterial trunk lying immediately upon the under side of the back-bone, *which trunk is the left or systemic ventricle of the heart, and sends the blood throughout the body of the fish.*" *Cuvier's Animal Kingdom*, page 290, London edition, 1840.

After this quotation from Cuvier, what becomes of Dr. Cartwright's assertion, above, "that it is known to naturalists, that of the 12,000 species of fishes not one has any muscular organ answering to the left ventricle of mamals?" It was a mere assertion, unaccompanied with any proof whatever. Will Dr. Cartwright tell us what naturalists deny the truth of the above extract from Cuvier?

It will be perceived, too, in the above extract which I have given from Dr. Cartwright's article in the Boston Medical Journal, that he indirectly accuses me of unfairness, in "so ingeniously wording my criticism as to lead the uninformed to believe that something like a muscular organ, corresponding to the left ventricle, actually exists in fishes to propel the arterial blood." Now, all that I did was simply to quote Cuvier, as above, a quotation which completely falsifies his bold statement in regard to fishes, and which he answers only by bold, unsupported assertion, and by intimating, very unkindly, that I had attempted to mislead "the uninformed." Assuredly this is a very singular way of invalidating the statements of Cuvier and his commentators; for it is to be recollected that the London edition of 1840, quoted above, was published by a corps of distinguished *savans* and naturalists, who all subscribe to the above quotation. As to the unkind intimation in regard to myself, I pass it over without comment.

Dr. Cartwright again alludes to the subject of lymphatic hearts. I have examined the *Anatomie Comparée* of Cuvier, and find that Dr. Cartwright quotes Cuvier correctly; but the existence of lymphatic hearts proves nothing in favor of Mrs. Willard's theory, which declares the circulation of the blood to be independent of hearts.

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* Boston Med. and Surg. Jour. Aug. 25, 1852, p. 81.

Dr. Cartwright, in his article of the 25th of August last, in the Boston Medical and Surgical Journal, resumes the subject of the *circulation in insects*, and labors to prove that they have no heart, and that their circulation depends entirely upon "hæmatokinety." He does not admit that the dorsal vessel is a heart; but he cites no authorities whatever in support of his statements. He says: "Because the early entomologists *happened* to call the dorsal vessel a heart, and observed a flux and reflux of the fluids contained in it," etc., etc.; as if none but the early entomologists called it such; when, in fact, all of the most noted entomologists of the present day call it a heart. Dr. T. W. Harris of Cambridge, in his Report, in 1841, on the Insects of Massachusetts, published by order of the Legislature of that State, says: "The *heart* (of insects) is a long tube, lying under the skin of the back, having little holes on each side for the admission of the juices of the body, which are prevented from escaping again by valves formed to close the holes within. Moreover, this tubular *heart* is divided into several chambers by transverse partitions, in each of which there is a hole shut by a valve, which allows the blood to flow only from the hinder to the fore part of the heart, and prevents it from passing in the contrary direction. The blood, which is a colorless or yellowish fluid, does not circulate in proper arteries and veins, but is driven from the fore part of the heart into the head, and thence escapes into the body, where it is mingled with the nutritive juices that filter through the sides of the intestines, and the mingled fluid penetrates the crevices among the flesh and other internal parts, *flowing along the sides of the air tubes*, [Dr. Cartwhight says the blood cannot go to seek the air,] whereby it receives from the air that influence which renders it fitted to nourish the frame and maintain life."

The latest French authorities also declare the dorsal vessel a heart. H. Milne Edwards and M. Deshayes say, in commenting on Lanarck: "Il est exact de dire que les insectes n'ont ni artères ni veines; mais il parait indubitable que leur vaisseau dorsal n'est autre chose qu'une espèce de cœur tubiforme." *Histoire Naturelle des Animaux sans Vertebres.* Paris, 1840.

The blood of insects circulates freely through all parts of the body, and that, too, not by "hæmatokinety," but by the contractions of the dorsal vessel. H. Milne Edwards cites M. DeBehn, in proof of this, as follows: "*Les contractions du vaisseau dorsal* mettent ce fluid en mouvement, et le dirigent vers la tête; il revient vers l'extremité posterieure du corps par les parties ventrales et laterales du corps, et rentre dans le vaisseau dorsal par des ouvertures garnies de valvules.

Quelquefois le mouvement circulatoire est vidé *par les battemens d'un organe musculeux* particulier situé à la base des pattes." *Behn, Ann. des Scien. Nat.* 2e série, t. 4, p. 5.

There is nothing of "hæmatokinety" in all this. M. Milne Edwards also cites Wagner, Burmeister, Duges, and the Memoires de l'Academie de Bonn, as saying that " Le liquide nourricier des insectes, que merite à tous égards le nom de sang, n'est pas en repos comme on le croyait généralement, mais circule dans un système de lacunes. Le vaisseau dorsal parait en être le principal agent moteur, mais quelquefois il existe aussi des organes accessaires destinés à les usages analogues. Ainsi, il y a dans la base pattes des Notonectes unappareil valvulaire dont les battements contribuent à imprimer au sang le mouvement dont il est animé.

M. Strauss also says : " Le sang recu dans l'interieur du vaisseau dorsal est, par consequent, poussé vers la tête *par les contractions de cet organe.* L'extremité antérieure du vaisseau dorsal est tres grèle, et quelquefois se divise en deux, en trois, ou meme en un plus grand nombre de branches qui sont ouvertes au bout, et qui laissent échapper le sang dans les lacunes, situées entre les viscères, les muscles et les tégumens."

After reading the above extracts from some of the most eminent naturalists, one will smile at the statement of Dr. Cartwright, that " the early entomologists *happened* to call the dorsal vessel a heart ;" and one will also be at a loss to conceive how insects, having such a circulatory system as that described by the above entomologists, could owe the circulation of their blood to that ridiculous figment of Dr. Cartwright's brain, " hæmatokinety." It is a remarkable fact, that insects have a more extensive contractile apparatus, in proportion to their size, for propelling their blood through the tissues, than any other order of animals.

Dr. Cartwright declares that I "would make my verbal logic exclude the evidence of three millions of species of animals proving the truth of the doctrine that it is the air which gives life and motion to the blood."* To this I have simply to say, that I have endeavored to prove nothing by mere verbal logic, to exclude nothing, to introduce nothing. Those who have done me the honor to read my articles in the September and July numbers of the New Orleans Medical and Surgical Journal, 1852, will readily say that there is nothing in them depending on mere verbal logic. I have dealt only with facts and logical arguments ; and I only

* Boston Med. and Surg. Jour. Aug. 25, 1852, p. 81.

regret to say, that my able and learned opponent has only met my facts with assertions, unaccompanied by proofs, or the citation of respectable authorities ; and my arguments with ridicule, irony and uncourteous intimations. I am disposed, however, to be lenient, knowing my able opponent inclined to be humorous ; but I must insist, in future, on a more grave and dignified mode of scientific discussion. I am not, however, entirely opposed to the question of the Roman poet:

——————— ridentum dicere verum
Quid vetat ?———————

but the dignity of science requires that we should adopt, in general, as our motto : "*Amoto quæramus seria ludo.*"

Dr. Cartwright wields an able pen, and we trust that he will continue his physiological researches. We are happy to see, by his articles in the Boston Medical and Surgical Journal, that he lends his support to the brilliant physiological developments of our distinguished fellow-citizen, Dr. Bennet Dowler, whose researches in physiology have widely extended his name, and ranked him among the first of American physiologists.

Part Second.

EXCERPTA.

I.—*On the effect of Colchicum in Dropsy.*

BY DR. MACLAGAN.

In dropsy succeeding to scarlatina, I have frequently found colchicum of much service, especially in cases where the urine is much suppressed, and where comatose symptoms are present. The accession of coma may easily be ascribed to the accumulation of urea in the blood; and the power which it has been shown that colchicum possesses of replacing the urea in natural, and often superabundant, amount in the urine, seems to point it out as a useful remedy in this and other diseases in which suppression of urine and coma coexist. In a case of scarlatina which I attended along with my friend Dr. A. Christison, now of the H. E. I. C. Service, and where the urine was totally suppressed, and the symptoms of coma were present, the acetic extract of colchicum was used with complete success. Diluents and ordinary diuretics were freely employed when the case was first seen, with the effect of causing a slight secretion of urine of low specific gravity. Having suggested that colchicum might be found of some service, and being anxious to observe its effects, both as a diuretic and an eliminator of urea, I examined the urine before its exhibition. The result was as follows—

Urine examined on the 10th of April.

Total solids,		35.795
Urea,	2.427	
Uric acid,	a trace	
Inorganic salts,	13.510	
Organic matter and water,	969.573	
Albumen,	14.490	
Total,	1000.000	

The acetic extract of colchicum was ordered on the 11th April, and the other medicines discontinued. On the 12th the comatose symptoms were considerably abated; urine of a normal density was passed in tolerable quantity, and was examined again on the 13th, two days after the exhibition of colchicum. It contained—

Total solids,	- - -	-	30.759
Urea, -	- - -	7.500	
Uric acid,	- - -	0.480	
Inorganic salts,	- -	8.718	
Organic matter and water,		-	975.359
Albumen,	- - -	7.943	
Total,	- -	1000.000	

On the evening of the 14th the comatose symptoms disappeared; urine of normal density was passed in proper quantity; the dropsical effusion and anasarca completely gone. On the 15th considerable diarrhœa had set in; the colchicum was stopped, and the urine again examined. It contained—

Total solids,	- - -	-	27.972
Urea, -	- - -	13.573	
Uric acid,	- - -	0.814	
Inorganic salts,	- -	7.431	
Organic matter and water,		-	978.182
Total,	- -	1000.000	

The analysis of the urine in this case will show the powerful influence which colchicum possesses in altering the renal secretion, and of how much service, as a remedy, it may be in cases of threatened poisoning by urea in the blood. I believe, in all cases where albumen and urea appear to be vicarious, and where coma supervenes, evidently from the accumulation of the latter principle in the blood, that colchicum will prove to others of as great service as it has already done in the small experience I have had of it.

Two other cases of a similar nature, in which the urine was examined at regular intervals, were treated in the same manner as that which I have related, with precisely the same result.

(*Monthly Jour. Med. Science, Jan.* 1852.)

II.—*On the Claims of Homœopathy.*

In an address delivered before the Medical Association of Southern Central New York, the President, Dr. James H. Jerome, used the following language. (*Ed.*)

Of this system of medicine I scarcely know how to treat, and should pass it in silence, were it not enumerated in the list of competitors for public confidence and favor. For as readily would I enlist in a campaign with ball and bayonet, against an army of fairies, as to attempt by rational induction to overthrow the foundations of this fanciful system.

The construction of mind necessary to its embrace forbids all rational hope of successful attack. The first state of which is a distrust of all scientific and rational induction in medicine. The second, that the professors of medicine who base themselves on this platform, are but a band of pirates, to be met and baffled, no matter how. With these convictions unmistakable and abiding, he or she is permitted to leave the anxious seat and by the simple act of faith in the great god Hahnemann, and Jahr as his prophet, are entitled to a place in the temple of his saints, as patient or professor.

With these qualifications, the avenues of successful approach to the unbi-

assed mind and reason of the devotees of this popular delusion, are utterly and hopelessly closed to the unconditionally proscribed.

Were you, gentlemen, to open a Homœopathic Pharmacopia where the manner of preparing the medicine, and the quantity to be used is most minutely and with great apparent sincerity described, and read therefrom this conclusion of the author, after having treated of the manner of procuring an ultimate dilution, apparently conscious of the drought which would naturally follow its completion in a dry region, that "true, an ordinary lake would fail to furnish a sufficient quantity of water to reduce one drop of the mother tincture to its ultimate dilution. Yet a homœopathic preparation could never be made of a lake, in consequence of our complete inability to give it the requisite number of shakes."

I fancy, gentlemen, your arithmetics would be at fault to determine the exact amount due to each of the dozen or more pellets to be saturated with one drop of this ultimate dilution, but away with your mode of reasoning and calculation, and learn from further consultation with the author, that the effect produced depends not upon the quantity used, but rather upon the quantity not used—for he will gravely tell you that the potency of his medicine will continue to increase in direct ratio with the extent of the dilution—ad infinitum. What mode of reasoning, think you, would convince such a mind that medicine, the result of such process, was no longer medicine, that it was wholly incapable of producing a medicinal effect? No matter what, the invariable reply is ready in the quotation of a thousand and one cases of most brilliant results following its administration. Such an one was attacked with severe pain in the stomach, (after dinner, perhaps) turned to his book, found the pain described, with its antidote; opened his case of vials; secured the pellet; placed it upon the end of his tongue, and the pain was instantly relieved. Another, a child, was attacked with croup, that horror of the nursery, the symptoms examined, medicine ascertained, and a cork from the thirtieth dilution of the right sort placed under its nose, a sniff taken, and the child sneezed, and ere the cork could be replaced, the little sufferer was in the midst of its amusements, with respiration as free and as unruffled as ever.

If not satisfied with these quotations, you are instantly plied with the long list of adherents, Reverends, Esquires, Aristocrats, and the fastidious of every hue. And the mind that for the sake of truth, of reason, and correct rational inquiry in medicine, that can resist all these, is given over of Homœopathy to blind and hopeless incredulity.

Much credit, however, is due to the founders of this system, for the rich displays of the power and genius of the human mind. From the infinite variety of pains discovered and described, we are to conclude that the sentient extremity of every nerve has been consulted, and the sensations peculiar to each not only noted, but rendered with such clearness and perspicuity as to be within the comprehension of the most common observer.

In the arrangement of medicine, again, the provision appears to be nicely adapted to the demand, consequently the system is complete. Medicine suited to the pain, and pain suited to the medicine. Whether the system of medicine was first arranged, and the symptoms subsequently adapted to the medicine, or vice versa, does not appear. Yet there is peculiar prominence in the fact, that there is a pellet for every pain—ergo, a pain for every pellet. This question of priority, however, we suppose to be matter of indifference with the thoroughly indoctrinated. We may not then attempt, by our mode of reasoning, to controvert the claims which this system has to confidence and favor. But with becoming resignation await its day of doom.

III.—*On Pathological Cell Development.*

Dr. Gairdner made a verbal communication of considerable length on certain peculiarities of pathological and other structures, as bearing on the different theories of cell development. He considered the cell theory of Schleiden and Schwann, although it led to the discovery of many interesting facts, and really important morphological generalizations, to have been utterly overthrown, as a general theory of development, by the progress of scientific inquiry. The cell of these physiologists, so far from having the fixed and uniform character of a basic type of form, was the most fluctuating and uncertain of all morphological creations. Its form, size, law of development, were either confessedly uncertain, or had to be stated in terms so vague as to lead to the conclusion that form and substance, and perhaps microscopic size, were the only attributes essential to the idea of a cell. No one could tell, in practice, what was a cell wall, and what was a nucleus, and no one could give a satisfactory theoretical definition of either, or resolve, for all cases, which of the two preceded the other in the course of development. The theory of "germinal centres," held by Mr. Goodsir, in so far as it ascribed to certain "nucleated particles" the function of the cell, was in Dr. Gairdner's opinion, subject, in like manner, to the imputation either of vagueness or of want of comprehensiveness. If these nucleated particles came under any more precise definition than was applicable to every kind of organic or inorganic structural atom, it would be very difficult to show that they monopolized and centralized the whole functional activity of the organism, or were more necessary than other parts to its growth and preservation.

He (Dr. Gairdner) believed that there was no distinction in the organism of passive and active atoms, and considered every point and every molecule as endowed with its own life, and placed, in its own peculiar sphere of activity, in harmony with the rest. He agreed with Dr. Bennett in thinking, that many tissues arose from elements far more minute than any to which the term cell or nucleus had been applied; indeed he was far from thinking that our microscopes had conducted us back to the real germs of the tissues, and considered that the structural, like the chemical atom, still lay in the remote region of hypothesis. He firmly believed, however, in these hypothetical germs, and could not conceive of the tissues being formed by any thing like what the Epicureans would have called a concourse of atoms, according to their physical and chemical properties. Hence he did not think, that by the mere introduction of peculiar molecular elements into the food, we could either create new tissues or destroy old ones, so directly and simply as had been hinted by Dr. Bennett.

The positive part of Dr. Gairdner's communication consisted in the detail of observations on the structure and development of the pus-corpuscle and other pathological structures, intended to show that the so-called cell walls were often generated in great numbers without nuclei; and that the whole of the facts of cell development contradicted the idea of any part of a cell being, more than another, the source of its functional development and activity. In regard to the development of fibres, Dr. Gairdner thought there was no evidence that these were ever produced from cells, under any circumstances; and he had long been in the habit of regarding the so-called fibre cells as merely transition types in morphology, and not parts of a physiological succession of stages of development. It was difficult to prove this view any more than its opposite, but he thought any one who would give it consideration in original observations, would find it in harmony with all the known facts, both physiological and pathological.

Dr. Sanders remarked that Kolliker had demonstrated unstripped muscular texture to be composed of permanent fibre cells, whose development by elongation of spherical nucleated cellules he had traced in the pregnant uterus. This texture, therefore, had been lately found a corroboration of Schwann's views, which it was previously thought to contradict. Doubtless some textures were formed without passing through the form of cells ; thus, particularly, fibrous tissue, as observed in cartilage by Redfern and Donders; yet the constant presence of nuclei and cellules in skin, mucous membranes, glands, and bone, their transition forms, their extensive development in the fœtus ; their occurrence in newly forming textures in all organized beings, animal and vegetable, gave immense weight to Schleiden and Schwann's views, and justified our adherence to them in physiological anatomy. In pathology their applications appeared more limited, and less satisfactory.

Dr. Gairdner's statements, and a gaining distrust among observers at home and abroad, proved the necessity of submitting the " cell theory" to the criticism of new and extended observations ; it ought not, however, to be rejected but only thoroughly reinvestigated.

(*Canada Med. Jour.*)

IV.—*Of the Ferruginous preparations in Organic Affections of the Heart.*

In affections of the heart, digitalis has been greatly abused. Recently many writers on Pathology have condemned the free and indiscriminate use of this article in organic diseases of this organ ; and now a course of treatment precisely opposite to that heretofore employed, is recommended on more rational principles and a more enlightened pathology.

M. Alison has recently defined the indications which are to be fulfilled in organic affections of the heart, characterized by dilatation of the ventricles—more particularly of the right ventricle. These indications are four in number, as follows : The *first* is to overcome, or at least to weaken, as much as possible at its fountain, the resistance to the circulation—the cause of the dilatation or hypertrophy; the *second*, to prevent the dilatation, or to diminish it when it is produced ; the *third*, is to maintain the hypertrophy within certain limits ; the *fourth* is to sustain and fortify the organ thus diseased and weakened. All these indications, except the fourth, can only be fulfilled by the aid of tonics.

M. Alison demonstrated that hypertrophy of the heart is a happy contrivance of nature ; that it augments the energy of this organ, and imparts to it sufficient force to struggle against the obstacles which oppose the course of the blood ; and that we commit a great mistake when we seek to destroy or paralyze these beneficent efforts of nature by the routine use of digitalis and other powerful sedatives. The use of means of this kind is still more irrational in cases of cardiac dilatation attended with attenuation or wasting of the walls of the heart. Cardiac aneurism produces, besides, a state of general debility, and imparts to the blood a diffluent character. Writers even go so far as to assert, that impoverished blood may of itself become the cause of aneurism of the

heart, because it is incapable of imparting a sufficient stimulus to its walls. Besides, although the diffluence of the blood may be the cause or the effect of the aneurism, it always plays the same part, namely, that of producing atony of this organ.

Iron by restoring the constitution of the blood, imparts, by degrees, energy to the contractions of the heart, and thus succeeds sometimes, as experience has shown, in diminishing the existing dilatation. M. Alison reports, to sustain his views, many facts, which cannot be here introduced for want of space. The foregoing observations are of the utmost practical value, and should ever be taken into consideration in treating the diseases of an organ so essential to life. Heart-disease, so far as we have observed, is generally accompanied with evidences of anæmia, either as cause or effect; and we have now under treatment a case of cardiac affection in a youth about 16 years of age, evidently associated with an impoverished state of the blood. Under the iodide of iron his cardiac symptoms, if not improved, are at least stationary,—certainly his general appearance justifies the continued use of the medicine.

(*Ed. N. O. Med. Jour.*)

V.—*Iodine Clysters in the treatment of Dysentery.*

BY DR. EIMER.

Dr. Eimer believes that the great point to which practitioners have to direct their attention, is the enormous amount of organic losses consequent on the continuance of this affection; so that according to Œsterlen, within three weeks, more than the entire blood-mass may pass away as albumen in the stools. As a means of cutting these discharges short, he strongly recommends iodine clysters, which, in recent cases, may at once arrest the progress of the disease, and in all diminish the number of stools, and normalize their condition, whatever the individual peculiarities of the case may be. From five to ten grains of iodine, and as much iod. pot., are administered in two or three ounces of water, from two to four times a day—twice daily usually sufficing. If the rectum is too irritable to retain it, ten or fifteen drops of tr. opii are to be added, and a mucilaginous vehicle substituted for water. Dr. Eimer employed this remedy during an epidemic; and he believes the disease will, as a general rule, be found curable by it, if it be resorted to before the organic changes in the intestines have advanced too far, exhaustion becomes too considerable, or more important complications set up.

In some slight cases it was employed alone. Generally a simple oily emulsion was at the same time administered, and sometimes acetate of lead and opium.

(*From Henle's Zeitschrift, in St. Louis Med. and Surg. Jour.*)

VI.—*Influence of the Imagination or Will upon the Pregnant Woman.*

BY I. G. BRAMAN, MASS.

The following somewhat unique case occurred in my practice, and is submitted for the pages of the Journal without note or comment.

In the month of May, 18—, I was summoned to attend Mrs. ———, who was at the close of the ninth month of pregnancy. As I entered the room, I found every thing arranged for her accouchement, which was momentarily expected to occur. The pains were frequent and vigorous, and an examination per vaginam revealed the os uteri fully dilated, the head advancing, and all things as favorable for a speedy termination as could be desired. I consoled myself with the idea that I should be soon released and on my way home. The female assistants, those kind and *sometimes* convenient appendages to the lying-in room, concurred most fully in this opinion, and were profuse in their encouragement and congratulations to my patient. But alas for the vanity of all early expectations. She did not respond either in faith or by practice. On the contrary, she obstinately turned a deaf ear to all consolations, declaring, in emphatic terms, that "she should not be confined before aunt Nancy came back." By the way, this same aunt Nancy was a woman of some considerable note in that portion of the obstetric world, and Mr. ——— had made a special arrangement with her in reference to this occasion, but the *miserable sinner* regardless of her solemn promise, had left town on a visit. Her presence and sympathy, it seemed, was a *sine qua non*, and consequently I must relinquish every hope of accomplishing any thing while such an unfortunate conjunction of circumstances obtained. In vain I laughed, expostulated and even scolded. Mrs. ——— made but one reply to all, "You may say and do what you please, but I tell you I shall not be sick before aunt Nancy comes back, if she never comes." The pains were still urgent, and a few expulsory efforts were all that appeared necessary to complete the labor.

In this state of doubt and uncertainty we spent the night. Morning came, but with it no relief. The major portion of the day was spent in the same manner; matters remained in statu quo. About 4 P. M. my assistants (who had received some accession to their number from a neighboring domicil) began to look grave, and exchanged significant glances. Suddenly they vanished, leaving me *solus* with Mr. ———. By certain stifled whisperings, I inferred they were holding a conference in an adjoining room. This, I knew, portended some important communication to myself, and I waited with fortitude to hear what it might be. I was not kept long in suspense. The door opened, and marshalled in single file, they advanced, when the oldest, who had evidently been chosen chief speaker, thus addressed me:

"Doctor, don't you think Mrs. ——— has been sick some time?"

"I do."

"Why is she not confined?"

"You have heard what she says, and can judge as well as I."

"Is there any thing out of the way?"

"No."

"Can't something be done to help her along?"

"I know of nothing. We must wait patiently."

"Are you willing we should experiment upon her?"

"It depends upon what it is.

"We won't do any thing to hurt her."

"Well, with such a condition you may try your experiment, but I shall interfere if I see any thing in it calculated to do her harm."

With this consent they speedily commenced operations. A common wash

tub was placed under a chair which had lost the whole or the greater part of its bottom. In this tub some wormwood, hops, and I think tansy, were put, and boiling water poured over them. After waiting a few moments for the water to cool a little, Mrs. ——— was taken from her bed, seated in the chair, duly propped up by pillows, and supported by the arms of all the feminine gender present. This process was accompanied with various appropriate remarks, such as, "There, now, we have fixed you nicely." "You will be sick right off." "We aint a going to stay here again all night," etc. Contrary, however, to their expectations, her pains immediately ceased. She was perfectly comfortable, and evidently enjoyed the change. The conclave stood aghast, and after waiting over an hour, gave up their experiment, and with much chagrin replaced the good woman upon her bed.

There she remained one fortnight, happy and contented, suffering no annoyance, except some slight derangement of the stomach, which was easily relieved by appropriate remedies. At the expiration of this period aunt Nancy fortunately came back. No sooner did Mrs. ——— hear of this than her pains returned. Aunt Nancy was sent for, I was again summoned, and in a very short space of time a fine girl made its debut into the world.

June 9th, 1852.

(*St. Louis Med. and Surg. Jour.*)

VII.—*Syphilis.*

The subject of syphilis has been so fully reported on in a former volume, that it will not be necessary on the present occasion to do more than allude to the most recent communications.

A very important and useful contribution to the literature of syphilitic disease by Mr. Erasmus Wilson, is the latest monograph which has appeared on the subject. The intention of the work, as we gather from the preface, is to define and distinguish, more accurately than had previously been done, the syphilitic eruptions of the skin from those of simple origin. One of the first results of this investigation, the author informs us, "is the discovery that there is but one syphilitic eruption, and that the apparent differences in the character of the cutaneous affection are the simple consequences of modification in the development of that eruption, depending on time, treatment and temperament of the patient."

Another result of the author's inquiries is, that there is but one syphilitic poison, which may show itself in an ulcer, or in gonorrhœa, and that the latter is as certainly followed by secondary symptoms as the former.

The induration of the Hunterian chancre is also further believed to be the result of constitutional action, and likewise the evidence of systemic contamination.

On the subject of constitutional syphilis, the author holds opinions in many respects at variance with generally received doctrines. He believes that once admitted it is rarely eradicated, and that it will show itself even after successive generations. Scrofula is regarded as syphiltic; so are phthisis, lupus, lepra, and psoriasis. Lastly, the author holds, in its fullest extent, the communicability of the constitutional disease, through the medium of the secretions.

In giving a rapid analysis of the volume we may state that chapter I. gives a description of the modes in which the disease is transmitted, and in which the author insists strongly on the communicability of the constitutional disease, and illustrates the facts by several cases.

Chapter II. gives a brief account of the primary manifestations of the disease. Chapter III., of the secondary or constitutional; after which, in chapter IV., the author proceeds to the classification of the syphilo-dermata or various forms of evolution of the syphilitic poison by the skin, all of which he regards as an attempt, on the part of nature, to eliminate the poison from the blood. The first of these mentioned is simple congestion, forming syphilitic roseola, which is further subdivided into R. versicolor, orbicularis, annulata, punctata, and papulata. The latter is the link between the non-elevated and elevated eruptions.

The next degree is lichen, which has five varieties—corymbosus, disseminatus, confertus, annulatus, and pustulosus.

The third degree is the syphilitic tubercle, which the author also divides into five groups—corymbosa, circumscripta, disseminata, annulata and ulcerantia. All these varieties are minutely described and illustrated by three admirably executed colored lithographs.

Chap. V. is occupied with some other syphilitic phenomena not previously mentioned, such as alopecia, erythema, palmare, condylomata; also its local actions on mucous membranes in the nervous system and in the periosteum.

Chapters VI. and VII., congenital syphilis. In this chapter the author develops his peculiar views respecting the identity of scrofula and syphilis, as well as of the syphilitic origin of lupus, etc.

We now come to the treatment of syphilis, which occupies the eighth and concluding chapter. The author first speaks of the prophylactic treatment; which consists chiefly in rigid attention to cleanliness after intercourse. If excoriation occurs, he advises slight cauterisation, with argentum nitras. The abortive treatment is next considered. As soon as any indication of chancre appears, the author advises cauterisation at once, with potassa fusa or potassa cum cretæ. The nitrate of silver he considers to be perfectly inefficient.

The curative treatment is made to consist in two indications: 1, to prevent the increase of the poisonous ferment in the blood; 2, to ensure its removal by the natural emunctories.

The first indication is fulfilled chiefly by hygienic measures, as diet, exercise, bathing, etc.; the second by certain medicinal agents. Of these the principal is mercury. The preparation of this drug preferred by the author is blue pill, in doses from two to five grains, combined with a sedative. In addition to this, sudorifics are valuable adjuncts.

"In a word, observes the author, "the treatment of primary syphilis consists in limiting supply, and encouraging waste. But the supplies are to be limited, not restricted; the waste is to be encouraged, not allowed to run to profusion."

The author specially insists upon the great importance of avoiding salivation.

In the treatment of constitutional syphilis, Mr. Wilson relies upon the biniodide of mercury, in doses of one third of a grain three times a day, in the first instance; but in the more chronic forms, or tertiary phenomena of Ricord, mercury is said by him not only to be useless, but injurious. It is now that the use of the iodide of potassium is attended with such satisfactory results.

Mr. Wilson concludes with the treatment of lupus, which, as he regards the disease as syphilitic, he conducts on the ordinary principles of syphilitic medication. A remarkable case is detailed, in which this method was eminently successful.

(Rankin's Half Yearly Ab. Med. Scien.)

VIII.—*Treatment of Obstinate Ulcers by the internal use of Tincture of Cantharides.*

BY J. TART, ESQ.

In a case of extensive ulceration in a broken constitution, after the failure of various plans of treatment, Mr. Tart gave ten drops of the tincture of cantharides three times a day, with marked benefit. In three days from the commencement the sores began to contract, healthy lymph appeared round the edges, and vivid granulations started up. In a fortnight the ulcers were healed. On this case the author remarks :

" Such was the progress and issue of a case that had baffled every previous treatment employed. It affords one of many examples I could bring forward of the great utility of cantharides in indolent ulceration, dependent either on atony of the engaged parts, or system generally.

In 1845, while resident in Burmah, my attention was directed to the treatment of the ulcers met with in that country, and which had long been found difficult to heal by different medical gentlemen stationed upon that coast. I drew up a paper, exhibiting the appearances presented by the different ulcers, and the states of constitutional derangement with which they were identified, and in which I had employed the tincture of cantharides with marked success. The paper alluded to, backed by several cases treated by different medical friends, was forwarded to the Madras Medical Board, who ordered it to be circulated throughout the medical service of the Madras army.

A few extracts from the paper here referred to will show the character of the ulcers where I found the tincture of cantharides useful :

1st. Where the granulations were exuberant, but pale, weak and flabby.

2d. Where there was deficiency or total abstinence of granulations, the ulcers being deep and scooped out, with raised and indurated edges.

3d. Where the granulations were not defective, but cicatrizing irregularly, sometimes in the centre,at other times on one side,the lymph which was thrown out and organized one day being absorbed the next."

(*Ibid.*)

IX.—*On Catarrhal and Lobular Pneumonia in Infants.*

BY M. TROUSSEAU.

The eminent physicians who have written upon acute diseases of the chest in children, have clearly pointed out the symptoms, the lesions, and the relative gravity of the inflammations known under the names of lobular pneumonia, capillary catarrh, catarrhal pneumonia, pneumonic catarrh, and simple acute pneumonia. As, however, these accurate notions are scattered throughout voluminous treatises, or contained in detached and little known essays, the generality of practitioners entertain erroneous notions of the diseases of which we have spoken.

Catarrhal and true pneumonia (la pneumonia franche) are in truth as different one from the other, as are variola and erythema. We may adduce proof of this from the difference in their mortality. Of twenty children admitted during six months, suffering under acute true pneumonia, not one had died; whilst

of 36 children attacked with catarrhal pneumonia, not one had survived. Such diversity in the demonstrated results places these two diseases at an immeasurable distance from each other.

We may state, in order to give this parallel a more striking character, that in true pneumonia the symptoms exhibit an excessive activity and acuteness, and then suddenly subside. On the contrary, a certain proportion of cases of catarrhal pneumonia, however mild they may appear at the outset, rapidly assume an uncontrollable severity.

We have elsewhere, and that frequently, traced the groups of symptoms which characterize these two forms of disease, nevertheless we again present a summary thereof.

True pneumonia scarcely ever attacks an infant under two years of age; very rarely does it occur to those between two or three years of age; and it is met with more frequently as the child approaches youth. It has the same characters, signs and symptoms, as those of acute pneumonia in the adult, as we shall show. After twenty-four or thirty-six hours existence, the signs of the disease are but little heard, above the breathing sound and bronchophony, except by a crepitant rale, which in the adult is more frequently audible during the act of coughing, while the tubular breathing is heard over a considerable extent, the crepitant rale is seldom heard in infants. There remains in these cases from day to day, when the tubular sound has disappeared, merely a feeble respiratory murmur.

The course of the disease is also much more rapid, at least in children between three and eight years of age, after which period pneumonia differs less and less from that of the adult. The result proves that this is not a very fatal disease; however unskilful the physician may be, he will cure the greater part of his cases, if the attack be slight; however skilful he may be, he will lose an uncertain number, when the disease is of a severe character. Children are often brought to the hospital in the fourth, fifth or sixth days of the disease, and convalescence commences almost immediately. It cannot be supposed that the medical means (sufficiently trifling very often) employed could have had a notable influence upon the disease. Those who are admitted at the onset of the disease are so speedily cured, that we are often disposed to attribute to remedies effects which depend upon the natural mildness of a disease, which, under other circumstances, is attended with a formidable array of symptoms.

We ordinarily perform a venesection from the arm to the amount of from sixty to a hundred and twenty grammes (equal to 15 and 30 drachms, English) we excite vomiting by a mixture containing from thirty to forty centigrammes (equal to from four to six grains, English) of sulphate of copper, in fifty grammes (equal to about one and a half ounces, English) of some simple fluid. Thus, medicine is given once or twice a day during the most acute period of the disease. We then administer a linctus containing from ten to fifteen centigrammes (equal to about one or two grains, English,) of Kermes' sulphuret of antimony, and the same quantity of the extract of digitalis (?). These remedies are discontinued as soon as the pneumonic respiration disappears.

Catarrhal pneumonia does not manifest itself under the same aspect. It begins with catarrh, which rapidly extends to the small bronchi, invading in detached parts both lungs, especially behind; the crepitant rales are numerous and fine. These stethoscopic signs are observed for four, six, eight, or fifteen days, without the respiratory murmur being audible. Sooner or later, however, the murmur is heard, when either the cry or the voice is restrained, or at least the breathing sounds are prolonged. While the signs which are common to catarrhal and to pure pneumonia are manifest in one part, the per-

sistence of catarrhal pneumonia in another portion of the lung may be known by the persistence of the subcrepitant rale. It seems evident that the disease which had commenced in the mucous membrane, has extended to the parenchyma of the lung.

Although the febrile symptoms are less violent than in true pneumonia, they manifest considerable severity at certain hours in the day, subsiding almost entirely at other times; presenting the changes from better to worse, alternately elevating and depressing hope, and this state lasting for fifteen, twenty, or thirty days. Thus it exhibits the obstinate and uncertain feature of catarrh. The points of lesion become multiplied as the disease spreads to different parts; the fever acquires greater severity, the embarrassment of breathing is augmented, and the poor little sufferers sink exhausted, whilst some die more rapidly when the disease has greater severity from the outset, and the lungs have been quickly invaded over a large extent; bleeding, revulsives, antimonials, emetics, belladonna, squills, digitalis, polygala, having been tried without benefit.

The disease has generally a speedily fatal termination when it follows upon measles, an affection of the skin, or acute laryngitis.

These two diseases may, exceptis excipiendis, be compared in some of their features to the resemblances between erysipelas and phlegmon; erysipelas, like catarrh, passing over the surface, and when it has continued some time, producing ulcerations of the skin, boils and abscesses, in the same manner that capillary catarrh produces purulent deposits in the structure of the lungs; while pure pneumonia proceeds rather in the manner of simple phlegmon, severe in its inflammatory accompaniments, but terminating quickly and entirely.

An apology may appear necessary for our having thus dilated upon so ordinary a topic as that of infantile pneumonia, but more than one physician who has only studied diseases of the chest in hospitals for adults, will perhaps find, in what has now been said, the explanation of facts which have perplexed him. He will understand why the severity of pneumonia differs so widely in children, and when he shall be able to distinguish catarrhal from true pneumonia, he will be enabled to give a more confident prognosis.

We do not, however, wish it to be supposed that we consider catarrhal pneumonia as invariably fatal. If it be so in hospitals, where impure air exerts a prejudicial influence, it is not the case in private practice. Here the beneficial effects of frequently repeated emetics, of vesicatories, of antimonials, digitalis, etc., cure at least half of the cases; but at the same time a large proportion proves fatal, for the mortality of that disease is certainly fearfully great, in which one half of the cases end fatally.

(*Archives Gen.—In Half Yearly Abs.*)

X.—*Cholera and Dysentery.*

Since the issue of our last number the Cholera has continued to prevail, to a limited extent, in Columbus, and in a few of the towns in its vicinity. As our city authorities did not think proper to organize a board of health, nor appoint persons to ascertain the extent of the disease among us the present summer, we are unable to give an accurate statistical account of its mortality. We believe that about fifty or sixty persons have died of Cholera since the 25th of June last. The disease, when fully developed, manifested its usual malignity,

and with few exceptions, proved fatal; but there were a great number of cases bearing the symptoms of incipient cholera, which yielded directly or kindly to opium, calomel, camphor and aromatics, with rubefacient counter irritation. How many of these would become, without treatment, confirmed cholera, we believe observation will not enable us to determine.

In the early stage of this fearful malady, there is perhaps little doubt as to the efficiency of the remedies adverted to. If there is value in experience, we cannot avoid the conclusion that opium will allay the irritation of the stomach and moderate the peristaltic action of the bowels; that mercurials will excite a flow of bile and render the alimentary evacuations more consistent; that camphor and aromatics will quiet nausea and give tone to the stomach, and that rubefacients will act as salutary revulsives. They will produce these desirable results, provided always that the organs to which these remedies are addressed have not lost their impressibility to such stimuli. But there are very strong doubts in our minds, at least as to their remedial powers, in fully developed cholera. That such cases do occasionally recover, every physician of experience will affirm. Some under one plan of treatment, and some under another, while others, and perhaps an equal number, recover in the absence of all treatment, or what is equivalent to it, homœopathic treatment! Several cases have come under our own observation, which have laid for days in a partially collapsed state, with frequent discharges, and at the same time they were taking sugar pellets medicated with infinitesimal doses of *nothing*; and strange to say they recovered, as every man in his senses knows, without medicine.

The former class of patients recovered uninfluenced by the most potent remedies; the latter class recover entirely without them; while each class of champions of the healing art boast, but not according to knowledge, of the trophies of their skill, and the transcendental excellencies of their plan of treatment. Truly there are fallacies in medicine as well as in the other professions, and the wisest are liable to be deceived by the ever varying circumstances by which cases of the same kind are surrounded.

The cholera has not altogether left our borders; but

The Dysentery has perhaps been unusually prevalent among us during the present summer. As on former occasions, the latter disease has accompanied and followed the former. Indeed all "bowel complaints" have been rife, and few have entirely escaped a disordered condition of the alimentary canal. Typhoid fever has made its appearance, but usually in a sporadic form. Intermittent fever has not transcended its ordinary prevalence at this season of the year. The disparity between the prevalence of dysentery and intermittent fever would, we should suppose, be a matter of surprise to those who believe that both these diseases arise from the same malarious origin, and consequently should be treated with the same anti-periodic quinine. This notion, we are convinced, is a mischievous one, as will be seen presently.

Several physicians have applied to us by letter, for our views as to the most appropriate treatment of dysentery. We can readily imagine how a few partial friends might be desirous of obtaining them from our own hand; but we have not the vanity to suppose that our notions as to the treatment of this disease would attract the slightest attention from the profession at large. First, because we have nothing new to offer; and second, because if we had, our professional reputation is not sufficient to enforce the trial of our suggestions to any considerable extent. Nevertheless, it may be our duty, and it certainly affords us pleasure to give our testimony in regard to—we had almost said, the omnipotence of opium as a sheet anchor to the treatment of this most distressing malady. This remedy must ever be the main reliance, and so far as this disease is concerned, it is the blessed boon from God to man! Without it, the agonies of death are unequal to the tortures of violent dysentery. With it,

the indescribable pains are alleviated, and the patient falls at once into comparative ease and rest.

But opium is not the only remedy in dysentery. We have unshaken confidence in the use of occasional doses of saline purgatives. Epsom salts to the adult, and Rochelle salts to those of tender age. These purgatives we administer every third or fourth day. They act in a salutary manner in several ways—

1st. They irritate the bowels less than almost any other cathartic medicine.

2d. They sweep out the alimentary canal as thoroughly as any other.

3d. They produce, for the time being at least, nearly natural bilious evacuations, and sometimes the dysenteric discharges never return after their operation.

4th. They seem, by their hydragogue powers, to disgorge the capillary vessels of the mucous membrane of the lower bowels, by which they are enabled to contract upon themselves, and to resume thereby more nearly their normal calibre. The last idea is purely theoretical, and must be so, as we have no means of verifying their effects in this respect.

Mercurials are remedies of undoubted power in many cases of dysentery, but we doubt whether they should ever be pushed to salivation. In cases unaccompanied by intense irritability of the stomach and bowels, they excite a flow of bile and open the other secretions, and thereby accelerate the cure; but their use is generally far from being indispensable.

We have frequently administered quinine in cases where we supposed it to be most admissible, but we confess we have never been pleased with its action. While it has never with us arrested the disease in one individual case, unless complicated with well-marked intermittent fever, it has often aggravated the symptoms, and in our opinion protracted the cure. We regret that our experience in this particular does not correspond with that of others, whose testimony is worthy of the highest respect. The practice of the one or the other must be based upon erroneous pathological views, and are liable at least to result in injurious consequences. A case illustrating the questionable influence of quinine in dysentery occurred not long since, in the person of an eminent physician in a neighboring county, who during the prevalence of this disease declared, should he be attacked by it, he would never die by debility or for the want of an anti-periodic. Soon after he was attacked by dysentery, and he plied thoroughly, as he intended, quinine, his sovereign remedy. His disease proved intractable, and he died without the slightest alleviation of his symptoms. On post mortem examination, his colon was found to be one mass of ulceration.

We are inclined to believe that physicians, attacked by dysentery, are more likely to die than others, probably from their aversion to the full effects of opium, as well as all other active remedies, in their own persons.

During its prevalence in Columbus, the disease has proved fatal in but few instances. We regret to say that our ranks have been broken again, and that one of our esteemed and reputable professional brethren has been stricken down within a few weeks. Dr. Samuel Z. Seltzer, aged about 50 years, was unexpectedly taken from among us by dysentery, while in the enjoyment of a large practice and the unqualified respect of all who knew him.

(*Ohio Med. and Surg. Journal.*)

XI.—*Physiological "Researches of M. Bernard.*

PARIS, June 21, 1852.

According to M. Bernard's view of the action of the gastric fluid and the changes which the food undergoes in the stomach, it will readily be understood that the "chyme" will vary considerably in composition with the nature of the alimentary materials. It has been formerly supposed that the chyme was a homogenous fluid, resulting from the indiscriminate solution of all the digestable substances which had been taken into the stomach. In reality it is not so, since it is only the albuminoid matters which are digested in the stomach and the remaining alimentary principles pass into the intestine in the same, or nearly the same condition in which they were swallowed. The chyme, then, is a mixture of digested albuminoid matters, and undigested, oily, starchy, and saccharine substances. It remains to be seen what becomes of these last. Our method of ascertaining where and by what agents these matters are digested is, to follow them downward in the intestine and discover at what point of the alimentary canal the oil, or the starch, loses its natural physical and chemical properties and becomes absorbable. Oily matters, for example, enter the duodenum unchanged; but at a certain distance from the pylorus they suffer an alteration, are digested, in fact, and are no longer to be recognized by their ordinary characters. This change commences in many animals immediately below the opening of the biliary and pancreatic ducts, and as the bile appeared to be the most abundant and important intestinal fluid, the digestion of fatty substances has been attributed by some experimenters to this secretion. In some animals, however, the ducts are separated by a considerable distance; and in all these instances it is the biliary duct which comes first, the pancreatic duct afterward. In the rabbit, for example, the biliary duct opens at the upper part of the duodenum, while the pancreatic joins the intestine some eighteen inches farther down. In all cases where the ducts are so separated, the fat can still be recognized in the intestine after it has passed the opening of the biliary duct, and disappears only when it has been subjected to the action of the pancreatic fluid. The digestion of oily matters, in other words, always corresponds, in place, to the opening of the pancreatic duct. It occurs high up in the intestine when the duct is situated high, and lower down, when the duct opens lower down. There is, then, the most complete proof that can be drawn from comparative anatomy, that it is the pancreatic fluid that accomplishes the digestion of oily substances.

But a still more interesting proof is obtained by the method which M. Bernard has already followed with the saliva and the gastric juice, viz., by obtaining the fresh secretion from a living animal, and trying, by direct experiment, its action on the alimentary principles. For this purpose he takes a dog, in whom the processes of digestion are actively going on, makes a short incision into the abdomen, a little to the right of the median line, finds the pancreatic duct by feeling, introduces a slender silver canula, and allows the secretion to drain away into a small India rubber reservoir, until enough has been accumulated for experiment. This requires only a short time, if digestion is going on when the operation is done. He then takes fresh bile, saliva (the different varieties) and gastric fluid, obtained in the same manner. Olive oil shaken up with these different fluids in test tubes, is only mechanically mixed with them; but when it is poured into a test tube containing fresh pancreatic fluid, it is immediately emulsioned in the most complete manner; and the fluid, which was transparent and limpid like water, becomes at once white and opaque as milk. If the emulsion be exposed for some time to the air, at a temperature of 40° cent. it suffers a further change, and from alkaline becomes acid, in consequence of the fat being decomposed into glycerine and a free fatty acid.

This last change, however, is entirely artificial, and does not take place in natural digestion. In the intestine the oil is simply emulsioned, and still retains its peculiar chemical character. It is therefore absorbed as oil, but in a state of minute subdivision.

When the fresh pancreatic secretion is obtained from the living animal, in the manner indicated above, it is a clear, watery fluid, with a distinct alkaline reaction. It has the following composition:

Water,	-	91.28
Organic Matter,	-	0.44
Ashes,	-	8.28
		100.00

Free Soda,
Chloride of Sodium,
" Potassium,
Lactate of Lime,
Alkaline Carbonates,
Phosphate of Lime.

To which of these ingredients does the pancreatic fluid owe its peculiar property of emulsioning fat? It is not the free soda or the alkaline carbonates, since the saliva and the bile are equally alkaline but have no similar effect on oils. The contents of the intestines also are in many animals constantly acid, and would therefore effectually prevent any action that depended on the alkaline qualities of the secretion. The pancreatic fluid, like the gastric juice, owes its digestive properties to the organic matter which it holds in solution. This organic matter, like that of the gastric juice, is precipitable by alcohol; and the precipitate, drained, washed, and redissolved in water, retains all its original properties. Its solution has the property of emulsioning oily substances in the same manner as the natural pancreatic fluid.

The active principle of the pancreatic fluid has some points of resemblance with albumen, since it is precipitated both by heat and alcohol. It is not albumen, however, since neither the white of an egg, nor the albumen of the blood, have any similar action on oils. It differs from albumen also, in some chemical characters; as its alcoholic precipitate is easily soluble again in water, while albumen, once precipitated, cannot be again dissolved. It resembles casein also, in some respects. It is precipitated, for example, like casein, by sulphate of magnesia in excess. As the casein in milk apparently seems to hold its oily part in emulsion, so the pancreatic fluid in the intestines exerts a similar action on the oleaginous ingredients of the food; so that there is, in reality, considerable resemblance in the physiological properties of the two substances. They are not, however, identical, since the pancreatic fluid is coagulated by heat, which has no effect on a solution of casein. Bernard finds that fresh pancreatic fluid constantly coagulates by heat. Other experimenters, particularly in Germany, have stated the contrary, and maintained that the secretion was unaffected by heat. This difference in the result of the experiments Bernard explains by the fact, that the pancreatic secretion becomes altered very soon after the operation of making an artificial fistula. Even in dogs, who bear these operations on the abdomen with greater impunity than most animals, the partial peritonitis, which is soon established about the wound, vitiates the secretion of the pancreas to such a degree, that it will no longer coagulate by heat, nor exert its proper action on oily substances. For purposes of experiment, it is always necessary to take the first fluid secreted after the performance of the operation.

The active principle of the pancreatic fluid must, then, be considered as a

peculiar organic matter, which gives to the secretion the power of emulsioning oily substances.

There is still another class of alimentary principles, namely, the amylaceous, which acquire to be modified by the action of the intestinal fluids. Starch is no more absorbable in its natural condition than fat, and to become absorbable, it is transformed first into dextrine, and next into sugar; and it is finally absorbed into the circulation under the form of sugar. There is one thing, however, remarkable about the digestion of starchy substances. While the digestion of both the other orders of alimentary principles, albuminoid and oleaginous, is strictly localized, so to speak, i. e., is performed in particular parts of the alimentary canal, and by means of special secretions, the digestion of starchy substances is not so, but takes place indiscriminately throughout the whole length of the digestive tube, below the stomach. All the intestinal fluids have, more or less, the property of converting starch into sugar. Simple contact with any part of the intestinal mucous membrane is alone sufficient to effect the change.

There are, then, three different digestions, so to speak, carried on in the alimentary canal; a different process being required for each of the three principal orders of alimentary substances, and at the same time there are three different products resulting from their modification. First, the albuminoid matters are dissolved by the gastric fluid in the stomach and converted into "albuminose;" a substance which is not coagulated by heat or the strong acids, but only by some metallic salts. Albumen, fibrin and casein, are all three converted by stomach digestion into this secondary principle. Secondly, fatty substances are converted into an oily emulsion by the pancreatic fluid in the duodenum; and thirdly, starch is transformed into sugar by the action of the intestinal fluids generally.

It will be seen that no account has yet been given of the nature and action of the bile; a secretion which seems particularly difficult of study, notwithstanding its great abundance and the ease with which it may be obtained for purposes of experiment. M. Bernard's explanation of its physiological properties will not, probably, appear by any means so clear and satisfactory as that which he gives of the other digestive fluids. One cannot help suspecting, indeed, that he is not entirely satisfied with his own ideas on this point. Such as they are, however, you shall have them, and form your own opinion as to their merits.

It has already been said that the bile has the property of converting starch into sugar. But this property is one which it possesses in common with all the other intestinal fluids, and cannot be considered as at all characteristic. The bile, in fact, has by itself no special action on any of the alimentary principles. Neither oleaginous nor albuminoid matters, in their natural condition, suffer any change by being placed in contact with it. But if albuminoid matters, which have already passed through the stomach be mixed with bile, an immediate action becomes evident. In all animals the opening of the biliary duct is situated at a very short distance from the pylorus; so that the food, on passing out of the stomach, comes immediately in contact with the biliary secretion. The effect of this contact is to produce a copious yellowish precipitate. Matters which were held in solution by the gastric fluid are thrown down by the bile. In other words, the chemical actions which had been going on in the stomach are arrested as soon as the food enters the duodenum. At this part of the alimentary canal a new set of actions is about to commence; and in order that they may be properly accomplished, it is necessary that those which have preceded them should be checked. For there is an essential difference, a kind of opposition, between the changes which the food undergoes in the stomach, and those which are to take place in the intestine; The processes of stomach digestion, are essentially antiseptic. They are analogous

to those produced by the prolonged action of fire. Fibrin, for example, is transformed into albuminose. Fat which is not chemically changed, is simply melted. Starch in the stomach merely swells up and becomes hydrated, exactly as it does by boiling in water. On all the alimentary matters the effect of stomach digestion is analogous to a kind of cooking, and is entirely anti-putrefactive. The gastric fluid is itself anti-putrefactive, and very little liable to change. It may be preserved for an indefinite length of time without losing its digestive properties.

On the other hand, the pancreatic fluid is extremely liable to putrefaction and changes very rapidly by exposure; so that a very short time after it has been secreted, it can no longer be used for purposes of experiment. Since there is this opposition between the actions of the gastric and pancreatic fluids, they would necessarily interfere with each other, were there not some secretion intermediate between the two, which should neutralize the action of the gastric juice before the contents of the stomach come to be mingled with the pancreatic fluid. The bile is such a secretion. It immediately destroys the gastric fluid and arrests its action; and in fact, it is found by direct experiment, that if the bile be injected into the stomach of a living animal, it effectually stops, for a time, the digestive process.

Another effect of the presence of bile in the intestine seems to be, to regulate the chemical changes which go on there, in such a way that the products of these changes are not the same that they would be out of the body. The decomposition of azotized organic matter, for example, out of the body, always gives rise to ammoniacal products. On the other hand, the substances resulting from the decomposition of non-azotized matters are always acid. Starch is transformed first into dextrine and sugar, and a continuation of the process produces lactic acid. Fats are decomposed into glycerin and a free fatty acid. In the intestine, however, exactly the contrary is the case. The internal surface of the intestine of carnivorous animals has always an acid, that of herbivorous animals an alkaline reaction. The azotized matters give rise to acid products, and the non-azotized to alkaline. This modification of the chemical changes, as they take place in the intestine, is referred to an influence exerted by the presence of the bile.

Such is M. Bernard's account of the character and functions of the bile. The secretion is so evidently one of a very complicated character, that perhaps it is not surprising that we have not yet entirely mastered its physiological history. Unlike other secretions, a large portion of it, after being once poured out by the secretory duct is reabsorbed, during its passage down the intestine. In the rabbit, for example, it is estimated that a quantity of bile is secreted daily amounting to one eighth or one tenth the weight of the whole body. But four fifths of this quantity are reabsorbed before it reaches the end of the intestine, and it is only a small portion, consisting mainly of the bitter principle and coloring matter, which is finally rejected with the refuse parts of the food. The liver is not only a secretory and an excretory organ, but is destined at the same time to accomplish certain other processes in the preparation of the blood, which are still more obscure and complicated, as will be seen from what follows on the absorption of the digested portions of the food.

The three alimentary substances which have been subjected to different digestive processes in the stomach and intestine, and which have respectively been converted into albuminose, sugar and an oily emulsion, are afterwards absorbed into the circulation. But they are not all absorbed by the same vessels. There are two different routes which these substances follow in leaving the cavity of the intestinal canals—1st, the portal vein; 2d, the lacteals. All the albuminoid and amylaceous substances pass by the portal vein; all the fatty matters are taken up by the lacteals. The chyle, which was formerly supposed to contain all the products of digestion, in reality only contains one

class of them, the oleaginous. The two other classes are absorbed by another system of vessels. The anatomy of the portal vein on the one hand, and of the lacteals on the other, make it evident that all the alimentary materials, after absorption, and before entering the general circulation, are compelled to pass through certain preparatory organs. The oleaginous matters, entering the subclavian vein by the thoracic duct, are taken directly to the lungs. The albuminoid and amylaceous substances, taken up by the portal system, must pass through the liver before they are mingled with the rest of the blood in circulation. In these organs, the substances which have been absorbed are destined to undergo a further modification before they can be used for purposes of assimilation. Even albumen is not assimilable until it has passed through the hepatic circulation. If pure albumen be injected into the jugular vein of an animal, it is not assimilated, but is excreted in the urine as albumen. But if it be injected into the portal vein, it passes through the liver, becomes assimilable, and no longer appears in the urine. Cane sugar, absorbed by the portal system, is converted in the liver into grape sugar. Oleaginous matters suffer some analogous change in the lungs, by which they are rendered fit to be used in the processes of nutrition. For these reasons, it appears at least doubtful whether it be possible to support life to any extent by means of "nutritive baths," which have sometimes been used for the purpose. Nutritive enemata are undoubtedly useful, since the albuminoid matters are taken up by the portal system and carried to the liver. But when absorbed by the vessels of the skin, they are not yet fit for assimilation, and must therefore be excreted in the same manner as when injected into the jugular vein. The digestive processes, therefore, or that by which the elements of the food are prepared for conversion into blood, far from being a simple process, performed in the stomach alone by the gastric juice, is not even completed in the interior of the alimentary canal. But the nutritive matters, after being rendered absorbable, have still other changes to undergo in the lungs and liver, by which they are made assimilable, and these must necessarily be considered as essential parts of the process of digestion.

A few days ago I had the pleasure of seeing, in M. Bernard's laboratory, two experiments which I had heard of before, but which it is difficult to believe in thoroughly, without the evidence of one's own senses. The first was a demonstration of the manufacture of sugar in the liver; the second, the production of diabetes mellitus in a rabbit, by wounding the posterior part of the medulla oblongata. Both experiments were completely successful.

M. Bernard maintains, that one of the constant and normal functions of the liver is the production of sugar. In all animals, dead suddenly while in good health, in the human subject under similar circumstances, in executed criminals, etc., the blood of the liver and of the hepatic vein, and the substance of the liver itself, is found to contain a very appreciable quantity of sugar (glucose); and this, when no sugar or starch has been taken for food, and when it cannot be discovered in the contents of the intestines, nor in the blood of the portal vein below the liver. Any serious indisposition checks this production of sugar, in the same way as it checks the secretion of gastric juice, of cutaneous perspiration, etc. But in a state of health it is a constant phenomenon. The sugar thus produced by the liver is destroyed in the lungs; consequently it is not found in the general circulation, nor in any other organ in the body than the liver.

To prove this fact, M. Bernard took a young dog that had been fed all the morning on animal food, and killed him instantaneously by destroying the medulla oblongata by a kind of "garote." The abdomen was immediately opened, and a ligature placed on the portal vein, just below the liver, another on the hepatic vein, just above, and a quantity of blood taken from each of these two situations to be tested. Each portion was subjected to the same process of

coagulation, decolorizing, etc., and afterwards tried by the same reagents—tartrate of potass and copper, with heat. The blood from the portal vein, which had not yet passed through the liver, showed no alteration whatever; in the other specimen a copious precipitate of the suboxide of copper took place, as abundant as is often seen in cases of diabetes mellitus. The substance of the liver, brayed in a mortar and extracted with water, showed the same reaction, while the substance of the lungs, treated in a similar manner, showing nothing of the kind. The fermentation test was also applied, but was altogether superfluous, as the results of the first were completely satisfactory.

The second experiment is as follows:

A rabbit is taken, and the bladder emptied by compressing the hypogastrium. The urine is tested for sugar, and as might be expected, shows no trace of it. A small steel instrument is then passed through the posterior part of the skull, into the substance of the medulla oblongata, and is immediately withdrawn. The instrument has a transverse cutting edge, like a chisel, a little over one line in length. From the middle of this edge a fine steel point runs out in the axis of the shaft for about two lines. This point is to prevent the cutting edge from passing through the medulla, and wounding its anterior fibres, which would destroy the animal. It is the posterior portion of the medulla alone that is to be wounded by the cutting edge. The instrument is then passed forward in the median line until the steel point rests upon the basilar process of the occipital bone, when it is immediately withdrawn. If the puncture has been made accurately in the median line, the animal makes no struggle during the operation, and appears simply feeble and exhausted afterwards. He soon attempts, indeed, to use his limbs, and in a few days is generally quite recovered. If the instrument has divided considerably to either side, the animal presents the singular phenomenon of constantly turning towards the wounded side whenever he attempts to move.

In the course of two hours after the operation, the urine tested by the tartrate of potass and copper, shows an abundance of grape sugar in solution; and the blood taken from the jugular vein also contains a considerable quantity. This state of artificial diabetes continues, in the rabbit, from thirty-six to forty-eight hours. At the end of that time the sugar disappears from the blood and secretions, and the animal returns to its natural condition, after which the state of diabetes may be again made by a fresh puncture. Indeed the experiment, if carefully performed, may be repeated several times upon the same animal.

The explanation of this singular phenomenon is not altogether easy. It is considered by M. Bernard as illustrating the connection between the cerebro-spinal and sympathetic nervous systems. But however it may be interpreted, the fact itself is incontestible.

Yours, truly,

JOHN C. DALTON, Jr.

(*Buffalo Med. Jour.*)

XII.—*Gun-Shot Wound of the Neck—Ligature of the Vertebral Artery.*

In the number for April, 1852, of the *Jour. des Connaiss. Med. Chirurg.*, we find the particulars of the following *unique* and very interesting case detailed, the material facts of which we shall translate for our readers.

About the 11th of February, 1852, Madame X——— was wounded by a pistol ball in the anterior region of the neck. On examination of the patient soon after the accident, Messrs. Maisonneuve and Favot found, in a line with the left lateral half of the cricoid cartilage, a circular wound of small size, which, at first glance, did not seem to penetrate to any great depth ; but on ascertaining the circumstances attending the accident, they learned that the hemorrhage was alarming. From this fact the physicians concluded that the ball had penetrated a considerable depth; which surmise was confirmed on further examination. At this time there was some swelling on the left side of the neck, accompanied with great pain, which extended and diffused itself through the upper extremities, especially to the left arm, which was also swollen and tender.

Both the respiration and voice were natural; deglutition was easy, and indeed all the other functions were normal. By the introduction of a stylet, it was ascertained that the cricoid cartilage on the left side was exposed,—that the ball having struck this body, glided afterwards from above downwards, along the side of the trachea and the œsophagus, on the inner side of the carotid artery, the internal jugular vein and the pneumo-gastric nerves—then penetrated as deep as the spine, where it was buried in the *sixth cervical vertebra.* In its bed, the ball was distinctly felt by the physicians, who made some fruitless efforts to extract it ; but as often as they seized it and began to use traction, the pains became atrocious and intolerable, and the patient was threatened with syncope. This caused them to abandon any further trials to remove the lead, as they feared a fatal result, should they succeed. The patient was then put upon the antiphlogistic plan of treatment,—was bled five or six times during the four first days,—took anodynes, and was kept perfectly at rest. Under this treatment the condition of the patient became greatly ameliorated. With an abatement of the general symptoms, the swelling about the neck also subsided, and hopes were now entertained that Madame X——— might recover.

But on the 19th of February, the eighth day after the accident, a profuse hemorrhage took place from the wound, which ceased spontaneously. On the morning of the 20th the hemorrhage was again renewed, but again ceased ; finally, on the evening of the same day the blood again began to start from the wound with increased violence. It was now deemed absolutely necessary to act promptly to save the patient ; and at this time a third physician, Doctor Tardieu, was called in consultation. He failing to reach the patient in due time, and the case being pressing, Doctors Maisonneuve and Favot proceeded to cast a *ligature about the vertebral artery*—the first operation of the kind, we believe, in the annals of surgery.

The Operation.—An incision, about 15 centimetres long, was made along the anterior border of the sterno-mastoid muscle, a little exterior to the place where the ball entered. Then the carotid artery and internal jugular vein were exposed,—both of which were untouched—the ball having passed on the outside and slightly denuded, but did not wound them. Through the large wound thus made, Messrs. M. and F. readily discovered the cricoid cartilage, the left

lateral part of which had been grazed; the first rings of the trachea and the œsophagus, which the ball had laid bare, without doing much damage; then on looking deeper into the wound, to discover the bleeding vessel, they found the ball buried in the *sixth* cervical vertebra; this they immediately extracted, when a terrific hemorrhage took place. By the introduction of the finger into the wound made by the lead in the vertebra, the bleeding was arrested; but it was speedily renewed when the finger was withdrawn. This experiment was repeated several times. Now it was thought that the blood escaped from the vertebral artery, which had been wounded in the canal of the transverse apophysis of the vertebra. In this state of uncertainty, and having no precedent to guide them, they nevertheless found it necessary to act, to save the patient. With one finger upon the mouth of the bleeding vessel, they carefully carried on the dissection, and finally reached the vertebral artery which poured out the blood. The vessel was then seized with *pince à coulant*, which was then closed to arrest the hemorrhage. The facility, say MM. Maisonneuve and Favot, with which this was done, led us to believe that at first we had been deceived, and that instead of the vertebral, we had only seized the inferier thyroideal artery. We shall not stop, continue these bold surgeons, to show how the vertebral artery, which was found concealed at this point in the bony canal, could be made directly accessible at this point to our instruments. We shall explain this fact hereafter. After having thus seized the vessel, we passed Cooper's curved needle beneath it, which had been previously armed with a double ligature; with one of these the vessel was tied below, and with the other above the forceps.

This feat in surgery gave infinite satisfaction to those gentlemen, who saw that the vessel had been effectually ligated, and the hemorrhage arrested. Another superficial artery, which was ascertained to be the inferior thyroideal, was then tied, without difficulty.

During this long operation the patient was under the influence of chloroform. The operation finished, the wound was united half its length by adhesive plasters, aided by a few stitches. No untoward accident checked the progress of the case; and on the 29th of February the ligature was removed without difficulty. From this dats the patient continued to improve up to the 5th of March. At this time febrile symptoms, without previous signs, manifested themselves, after violent mental emotion, and contiuued without interruption up to two o'clock on the 9th of March, when suddenly, during the toilette of the patient, she was seized with violent pain in the region of the neck—suddenly cried out, and fell into profound coma. At 9 o'clock in the evening the patient succumbed, in spite of the most energetic treatment.

Autopsy 36 *hours after death.*—The post-mortem revealed the following facts. The wound in the neck, cicatrized now only along its superior half, extended by an oblique trajet as far as the body of the sixth cervical vertebra, on the inner edge of which lay the trachea and the œsophagus; and on the outer border, the carotid artery, the internal jugular vein, and pneumo-gastric nerve. The inferior thyroideal artery, which had been divided during the operation,

contained a solid clot, about two centimetres in length; the transverse apophysis of the sixth cervical vertebra was broken, and thus exposed the vertebral artery divided,—the upper and lower extremities of which were filled with a solid clot, about three centimetres. Behind the vertebral artery, the 5th pair of cervical nerves were discovered; in front of these parts the body of the vertebra was traversed (creusé) by a deep canal, the extremity of which communicated with the spinal canal by a small opening—evidently produced in the latter days of the patient, and caused by necrosis of the osseous lamella, which formed the deep seated limits to the wound. The spongy tissue of the bone was infiltrated with pus; a sero-purulent exudation was found in the spinal canal, both in the external cellular tissue and in the subserous envelops of the medulla spinalis. No other important lesion was found in any part of the body.

Remarks.—We have endeavored to describe one of the most remarkable, and we believe unique operations which have yet appeared on the records of surgery; and but for the high standing and great reputation of the surgeons who assisted at the operation, some doubts might arise in the mind of the reader as to the practicability of performing it. That the vertebral artery may be wounded, without other serious injury to vital parts, is well known to every anatomist; and we have reported in Vol. VI. for 1849—50 of the Journal, a case of *traumatic aneurism*, caused by a wound of this artery. The patient was a slave man, who was wounded in a fracas in the neck, with some pointed instrument; the hemorrhage was profuse at the time, but was arrested. The wound healed, and a tumor made its appearance in the place of the wound; both the carotid artery and internal jugular vein escaped uninjured. Dr. Stone of this city, who treated and reported the case, thought one of the vertebral arteries had been wounded. In the meantime the tumor increased, and was on the point of bursting, when he determined to open it, let out its contents, and secure any vessel that might be wounded. This was done, when after the evacuation of a small portion of coagulum, a sudden gush of arterial blood took place. Doctor Stone placed his thumb upon the carotid artery, but this did not check the bleeding; the wound was then enlarged, the entire coagulum turned out, and then it was ascertained that the vertebral artery of the left side had been wounded. The hemorrhage was now controlled by thrusting the finger over the artery whence it coursed, between the transverse processes of the vertebra; the wound was carefully plugged up with lint—when the hemorrhage ceased definitively. The wound soon granulated, filled up, and in a short time the boy entirely recovered. What a misfortune our Gallic friends did not follow the treatment of Dr. Stone in that case. Perhaps it was too simple, and an opportunity for performing a new surgical operation would not be permitted to escape them. Let those who desire to save their patients in similar dangers, adopt the method of the American surgeon.

(*Ed. N. O. Med. Jour.*)

XIII.—*Neuralgic Amaurosis.*

In a work recently written by M. Tavignot on neuralgic amaurosis, and presented to the Academy of Medicine of Paris, we find the following concluding observations on this subject. I give, says M. Tavignot, the name *neuralgic amaurosis* to paralysis, either complete or incomplete, partial or general, of the retina, supervening under the influence of neuralgia of the 5th pair of nerves. The action exerted upon the eye by the 5th pair, when affected with neuralgia, is regulated by certain laws which may be formulated. M. Tavignot admits two species of neuralgic amaurosis, which are very distinct in their characters. The cause of one is a neuralgic state of the extra-orbital branches of the trigeminus; this he calls *extra-orbital neuralgic amaurosis;* the other is produced by a neuralgic state of the ciliary nerves of the 5th pair; this he denominates *intra-orbital neuralgic amaurosis.*

First—Of extra-orbital neuralgic amaurosis.—Extra orbital neuralgia of the 5th pair acts upon the retina, M. T. thinks, and induces paralysis of this membrane. This paralysis results from a want of equilibrium in the distribution of the nervous influx, as if the exaggerated loss of this fluid by the extra-orbital branches had taken place at the expense of the ciliary nerves. The march of extra-orbital neuralgic amaurosis is governed by the intensity of the neuralgic paroxysm—their duration and their frequency. It depends, moreover, upon the greater or less persistence, in the interval of the paroxysm, of the painful points existing on a level with a terminal division of the nerves—especially towards the summit of the head—upon the lateral parts of the nose—the upper lids, etc.

Second—Of intra-orbital neuralgic amaurosis.—When neuralgia is located in the ciliary nerves—although this neuralgia may be simple or associated with neuralgia of the extra-orbital branches, still there supervenes a functional perturbation of the retina; not the greater for the absence, but rather on account of the excess of nervous influx. Both forms of neuralgic amaurosis appear to have an analogous origin, although they differ completely in their symptoms.

The starting point of *neuralgic amaurosis*, regarded in a general manner, appears to consist in an anormal state of the blood, resulting from irregular assimilation, or from *désasimilation.* General treatment can alone be depended on in these cases. (*Journal Français.*)

Part Third.

REVIEWS AND NOTICES OF NEW WORKS.

1.—*Clinical Reports on Continued Fever, based on Analysis of* 164 *Cases*; *with remarks on the Management of Continued Fever; the Identity of Typhus and Typhoid Fever*; *Relapsing Fever*; *Diagnosis, etc., etc.* By Austin Flint, M. D., Professor of the Principles and Practice of Medicine in the University of Buffalo, and Editor of the Buffalo Medical Journal. Buffalo, N. Y., 1852. pp. 390.

As continued fevers, (*Typhoid* and *Typhus*,) have, of late years, become so much more common than formerly throughout the Southern and Western States—since, in fact, they seem to be *supplanting*, as it were, the more ordinary types of Endemic Fever, it is certainly desirable that the Profession in these parts should be put in possession of all the established facts and the most plausible theories that have been published respecting the causes, nature and management of these diseases. The work before us will go far toward supplying this desideratum, and we earnestly commend it to the attention of those who are disposed, as they should be, to investigate the subject. It consists of a series of minute and careful observations made at the bedside of a large number of cases, and embracing nearly every point concerning which information may be desired. In our whole reading we have rarely met with any thing superior to its graphic and minute symptomatology, its carefully drawn diagnosis and its excellent description of *post mortem* appearances. The author seems to have taken the celebrated work of Louis on *Fever* as his model; and in respect to minute and faithful observation and philosophical induction, may set up no mean pretension to rivalry with that distinguished pathologist.

As we are not allowed either time or space for a lengthy review of Dr. Flint's work, we shall only touch upon some of the most interesting

topics, and beg leave to assure the reader that he will find in it a large amount of valuable information. But few men possess sufficient industry to record so extensive and varied an amount of *noted facts* as is presented in this book, and but few have the talent to show, as Dr. F. does, the rational inferences which they authorize.

When it is recollected that this work is composed of actual bed-side observations in one hundred and sixty-four cases of Continued Fever, we know of no better way of giving our readers a correct idea of its value than by briefly running over its contents. It is divided into 14 Sections and a Supplement. The topics are as follows :

Section 1st.—Age. Occupation. Civil Condition. Nativity. Habits. Season. Constitution and previous health of the patient. Period of residence. Duration of the disease before coming under observation.

Section 2d.—The access. Its duration and symptoms. Circumstances supposed to have been instrumental in the production of the disease.

Section 3d.—Symptoms referable to the general aspect. Expression of countenance. Decubitus.

Section 4th.—Symptoms referable to the nervous system. Mind. Sleep. Coma. Senses and sensibility. Muscular contractions, etc.

Section 5th.—Symptoms referable to the digestive system. Appetite. Thirst. Tongue. Parotitis. Nausea and Vomiting. Alvine dejections. Tympanitis. Tenderness of abdomen. Gurgling.

Section 6th.—Cutaneous Eruptions.

Section 7th.—Symptoms referable to the respiratory apparatus. Cough. Expectoration. Pains in the chest. Pneumonitis. Epistaxis. Singuttus.

Section 8th.—Symptoms referable to the circulation. Pulse. Capillary Congestion.

Section 9th.—Symptoms (exclusive of eruptions) referable to the skin.

Seetion 10th.—Symptoms referable to the genito-urinary system.

Section 11th.—Duration of the disease. Circumstances attending convalescence. Sequelæ. Mode of dying. Fatality.

Section 12th.—Examinations after death.

Section 13th.—Treatment.

Section 14th.—Cases of doubtful type.

The supplementary articles relate to the symptoms distinctive of Typhoid and Typhus Fever—the question of their identity—the differential diagnosis—discrimination of Continued Fever from other affections—characters distinguishing Remittent from Typhoid Fever—management of Continued Fever—remarks on Relapsing Fever—Contagion, etc., etc.

The reader cannot fail to be pleased with this *bill of fare*, and must surely feel a desire to discuss it. In the first of the Reports, Dr. Flint displays much skepticism in regard to what has been claimed by the French and some American Pathologists to be the *distinctive characters* of Typhoid Fever, (*ulceration of Peyer's glands and the rose-colored eruption*,) making it a disease *sui generis;* but in the end, he declares his conviction of the truth of this position.

Now, with due deference to this respected author, we must contend that this is a matter of *no importance whatever*. What do we care for the *characteristic anatomical lesion of Typhoid Fever* or any other disease, if a knowledge of it suggests nothing beneficial either in its *prevention* or *cure?* These are the great objects of medical inquiry; and if our researches do nothing more than enable us to say over the bodies of the dead—this one died of Typhoid Fever, and this of Typhus, this one of Yellow Fever, this of Bilious Remittent, etc., etc., our labor and time will have been spent in vain. Our business is to *cure* diseases, and in so far as *an exact knowledge of their causes* will suggest appropriate remedies, it is well to have it; but, *without this exact knowledge of remote causes*, we have still learned, by patient and careful observation, so much of *their effects* upon the human system as enables us both to prevent and cure many fatal diseases. We cannot but think that the ulceration of Peyer's glands, so often met with in Typhoid Fever, is one of the *effects* of general morbid action which has been going on in the system for a considerable time, and that this lesion *does not of itself alone constitute the disease*. Nor can it be relied on as a *diagnostic sign*, because we cannot be *positively* sure of its existence until it is demonstrated by examination *after death*. The best Pathologists differ as to the importance that should be attached to it; and we believe all agree that its extent bears no uniform relation to the severity of the symptoms during life. These glands have been found extensively disorganized in cases that presented very mild symptoms; and on the contrary were very slightly affected in cases that had presented the most violent and distressing symptoms. Typhoid Fever is not the only disease in which morbid development of Peyer's glands is found. We know, from actual observation, that it is exceedingly common in Yel-

low Fever. But, admitting that this lesion and the rose-colored spots invariably attend Typhoid Fever and enable us to distinguish it from Typhus, of what use or benefit to us are these facts? Do they lead to any difference or improvement of treatment? We believe not. Most writers recommend the same general plan of treatment, even the same remedies for both types. We therefore think that much useless labor is expended upon these nice but insignificant points. Dr. Watson says, "there is but one species, although there are many varieties of Continued Fever"—and lays down pretty much the same precepts for the management of the whole. Dr. Flint says, "The general principles of management are applicable alike to *Typhus* and *Typhoid* forms of Continued Fever."

We have been taken to task for venturing to express the opinion that Typhoid Fever is not a distinct disease, *sui generis*, but only one of the Protean forms or types of endemic malarious fever. So far are we from being convinced of our error by the remarks of our critics, that we are now strongly inclined to go still further, and with John Armstrong, include *Typhus* in the same category. After writing his celebrated work on Typhus, Dr. Armstrong added an Appendix in which he declared that his views respecting the origin of this type of fever had undergone a complete revolution. He saw fever cases that commenced as distinct *intermittents* go on to the *remittent* type, and from that into as well marked *Typhus* as he ever witnessed. He also saw Typhus taper off, as it were, into remittent, and from that into the intermittent type. We beg the reader to refer to his works for the facts. On this point, however, we invite special attention to the 2d Section of Dr. Flint's work, which treats of the "circumstances supposed to have been concerned in the production of the disease." Here will be found some interesting facts going to support the views we entertain.

Dr. Flint's chapter "*on the management of Continued Fever*" is very interesting. After alluding to the various difficulties that lie in the way of a scientific investigation of this important subject, he approaches it by saying, "The management of Continued Fever may be considered to embrace, *first*, abortive methods, or measures designed to arrest the progress of the disease, or abridge its duration; *second*, the treatment of the disease irrespective of abortive measures, and without reference to co-existing or secondary affections; *third*, the remedies required by its complications. He then proceeds to give an exceedingly imperfect account of the first of these methods, (*the abortive*,) a much better and fuller account of the second, and some excellent advice respecting the

management of the complications, such as pneumonitis, peritonitis, paratiditis and apoplectic coma. We have already indicated our decided predilection for the *abortive* method, and as we have not been able to find any *fair* trial of it on record, we shall endeavor to supply this desideratum at our earliest convenience.

Dr. Flint gives a short chapter on what is termed "*Relapsing Fever,*" but we confess that we have so much dislike to this refinement of useless diagnosis, we must beg the reader to examine it himself.

The work concludes with a valuable article on "*the Transportation and Diffusion by Contagion of Typhoid Fever,*" in which the author republishes a paper of his in the American Journal of the Medical Sciences, published in July, 1845, giving an account of the Typhoid Fever that prevailed in 1843 in a village near Buffalo, called North Boston. The facts here presented go to show that the disease, under certain circumstances, is contagious.

We must here conclude our imperfect notice of this work by again commending it to the special attention of Southern and Western Physicians. Dr. Flint is one of the very best writers belonging to the Profession in this country, and we heartily congratulate the University of Louisville on obtaining so valuable an acquisition to its Medical Faculty. We learn that he has been elected to the chair lately filled by the illustrious Drake, and we cannot doubt that he will do so with credit to himself and with satisfaction to all concerned.

E. D. F.

II.—*Lectures on the Principles and Practice of Surgery.* By Bransby B. Cooper, F. R. S., Senior Surgeon to Guy's Hospital, etc. Philadelphia, Blanchard and Lea. 1852.

For more than twenty-five years, Mr. Cooper has been connected, as Surgeon to Guy's Hospital, and during this long service in one of the most famous Hospitals in Great Britain, gathered the facts and thus laid the foundation for the work before us. It does not claim to be a systematic work on the principles of Surgery; for this would be to depart from the lecture-system—a mode of imparting instruction now fully appreciated.

The first lecture is devoted to the consideration of the blood and its component parts; the second to that of the blood-vessels, absorbents,

etc.; whilst the third, by a natural and easy gradation, leads the author to the subject of inflammation—that *monstrum horrendum* to the student and young practitioner, which looms up before the vision of the former in the lecture room, besprinkled with the blood of its victims, and ever feasting but never sated with the work of death and destruction. But all figure aside—we know of no single word in the vocabulary of Pathology which has led to more serious mistakes, and inflicted more disgrace upon the practice of medicine, than the term "*inflammation.*" Book after book has been written—lecture upon lecture been delivered, to exaggerate and to explain the meaning and define the exact definition of the term; yet how few of us entertain accurate notions of this complex phenomenon! We admit, of course, the existence of inflammation; but we contend that the subject as held up to the student during his curriculum, is calculated to give him exaggerated thoughts on this subject, and, in some manner, to inspire him with terrible forebodings of its effects upon the human system. To be convinced on this subject, read the following remarks of Mr. Cooper at page 40. He says:

"*So universal is inflammation, that every disease, it may be said, either begins, ends, or in some period of its progress is accompanied by it.*"

We italicise the foregoing, that the attention of the reader may be made to dwell upon the dangerous tendency of such sweeping declarations. Can more error be compressed into fewer words? Are such doctrines creditable to a great teacher of Surgery? Every neophyte in practice must know by experience that such doctrines are untenable, and if permitted to influence us at the bed-side, will frequently end in disaster for the patient and mortification to the physician. Let us recal to mind the hundred and one different forms of nervous diseases—not more than half of which either "begins, ends, or is accompanied" with inflammation in any stage of their progress. In consequence of a better understanding of this subject, physicians of the South have, in a great measure, thrown aside the lancet, and other anti-inflammatory means.

Having thus repudiated the doctrine of blood-letting proclaimed by Mr. Cooper,—and the result has been a greatly diminished mortality,—a more speedy convalescence, and a material falling off in the fees of the faculty. Thus it must ever follow, that as our views of Pathology become more accurate and better defined, our Therapeutics must acquire greater scope and assume more definiteness in their application. The lancet and cups have given way to quinine and opium, in a number of

cases; and febrile exacerbations are no longer recognized as necessarily associated with gastritis, pleuritis, hepatitis, etc. The era for "*phlegmasias*" is decidedly on the wane, and we are inclined to believe that in less than half a century blood-letting, except in rare instances, will be put down by the almost universal consent of the profession. Other sedatives, besides digitalis, emetic tartar, veratrum viride, quinine, etc., will be wrought out of the laboratory of the chemist, which will meet all the indications in nearly every stage of inflammation.

Mr. Cooper's Lectures contain a large amount of useful information, and may be had at Steel's, 60 Camp street.

III.—*God in Disease, or the Manifestations of Design in Morbid Phenomena.* By James F. Duncan, M. D., Physician to Sir P. Dun's Hospital, Dublin.

Transactions of the Twenty-ninth Annual Meeting of the Medical Society of Virginia, together with the President's Annual Address and the Constitution of the Society.

Transactions of the Medical Association of the State of Missouri, at its Second Annual Meeting in April, 1852.

Hints to the People upon the Profession of Medicine. By W. Maxwell Wood, M. D., Surgeon U. S. N.

An Address delivered before the Medical Society of the State of Georgia, at their Third Annual Meeting, held at Augusta, April, 1852.

God in Disease.

Many of the views presented to the reader in this volume have, as the author claims for them, originality; but guided as he has been by an enlightened judgment and high moral and religious sentiment, much will be found to interest the general as well as the medical reader.

Having stated the opinions that are entertained relative to the existence of disease in the world, and discarding a common one, "that it is a necessary condition of our present state of being," as not standing the test of examination, any more than does the second opinion which refers all visitations of sickness to the direct agency of the Evil Spirit. It appears clear to the mind of the author, that since certain phenomena, which in former ages were in operation, have ceased, there has been a change in the government of the world, and that the power of wicked-

ness has been controlled to a greater extent than formerly; this Satanic influence in modern times is not supposed to have any immediate agency in the affairs of men, direct revelations from heaven have ceased, miracles are not performed to dissuade men from vice, or to allure them to virtue, and demoniacal possessions, though men do sometimes "play such fantastic tricks before high heaven as make the angels weep," have no firm abiding place in our mortal coil.

The third opinion entertained upon this subject is, "that disease is really the result of the divine appointment in every instance where it occurs."

To those who deny the truth of Revelation this opinion can have no weight; if certain circumstances were purely fortuitous in their character, then were it needless to refer to an intelligent First Cause; the argument, therefore, in support of this last opinion will address itself especially to those who embrace the truth of Revelation.

"If," observes the author," "disease be the result of pure accident, it will be characterized by the total absence of all method, contrivance and design; for it is irrational to believe that any thing can follow from the blind operation of chance but irregularity and confusion. If, on the contrary, it be the work of an intelligent agent, it will exhibit those qualities in a high degree of perfection proportioned to the intelligence possessed by him who is the author of it."

It is not claimed that the argument to establish the existence of an Intelligent Author, as exhibited in the contrivance and execution of his works, is a portion of the originality of the volume; on the contrary, its similarity to the writings of Paley in his Moral Philosophy and Natural Theology, can readily be traced; the dissimilarity consists in the sources from which the argument is drawn—disease, the body racked with pain, the existence of some fatal malady, or reason forsaking her empire, and leaving but the fatuous maniac, are the sources from which the author makes manifest "God in disease," and asserts his goodness, wisdom and power in the governance of his creatures.

"The proper end of human government," remarks Paley, "is not so much the satisfaction of justice, as the prevention of crime." The punishment of an offender is intended to benefit society, by preventing others from violating the supremacy of the laws; and by analogy, the Deity tempers the chastisement of disease with the rod of *correction*; viewing disease in this light, and not as a *punishment*, the writer next brings forward the fact, "that disease did not occur in the world until

after the fall of Adam." In Paradise there was no sin before the fall, neither was there disease.

At first sight this argument would favor the opinion that disease was fastened upon the Adamic race as a *punishment* for transgression; nor do we find in the Second Chapter, in which the question is fully discussed, an entire refutation of the opinion. After directing the reader to the sickness of Lazarus, to Abijah the son of Jeroboam, and to the whole history of Job, we find the following passage: "These instances are most important and instructive. They teach us that, in the case of the Lord's children, sickness is often sent under circumstances which do not warrant the idea, that the dispensation partakes even of the nature of chastisement, much less of punishment. . . . . It is entirely the result of God's gracious purposes towards them." The Bible represents God as being "angry with the wicked every day," and yet they may not be visited with sickness and affliction, but on the contrary, health and prosperity may smile around them; the *correction* of sickness is here withheld; "the punishment of the sinner is reserved for a future state."

The 3d, 4th, 5th, 6th and 7th Chapters treat of the evidence of the design that is afforded by the existence of disease. Writers on natural theology agree that one of the strongest arguments in support of their views, consists in the beautiful adaptation of one part of creation to another. Thus, for example, a large portion of the earth's garniture is green, this color being best adapted to the eye; and the moral as well as the physical nature of man tending to harmonise with surrounding circumstances, are evidences of design, skill and contrivance. As uninterrupted prosperity and continued health and enjoyment might lead men to forget the great end and aim of human existence, without the intervention of some powerful stimulus, we have, in the opinion of the author, disease, admirably adapted to meet that necessity. "How few," it is observed, "as we look around upon the world, appear to be in the slightest degree impressed with their frail and perishing condition." Sickness is calculated to awaken serious thoughts and to abstract the mind from over-much care about the things of time, speaking in impressive yet truthful tones, of the shortness and uncertainty of life, its admonitions are truly salutary. "When sickness appears in circumstances favorable to the full development of the finer feelings of our nature, how beautifully are they exhibited. The skill of the physician, the sympathy of friends, the anxiety of immediate relatives, the tenderness of the mother, the devotedness of the wife—are all exerted to the utmost."

But it is not only in those diseases which are commonly fatal in their character that design is exhibited; it is not necessary that the words of the Prophet, "thou art the man," should be directly applied, in order to give efficacy to the text; slighter attacks and milder diseases may arrest the attention, and impress upon the mind of man, that "'Tis the Divinity that stirs within him."

The frequent accompaniment of sickness—pain—is also significant of design; by it we are speedily admonished of departure from health in some organ of the body; and the insidious nature of some diseases may, perhaps, be early arrested by the attention of the physician being directed to its seat; thus pain performs no unimportant part in forming correct diagnosis whilst the absence of it in some cases may lead to self-deception and the fostering of a too eager credulity. The effects of pain is well described in softening the asperity of our nature, in the following language: "Its tendency is to develop kind feelings between man and man; to excite a friendly sympathy on the part of others towards the person immediately afflicted. No sooner is an individual attacked with illness, than a corresponding degree of interest is excited on his behalf."

It having been asserted in the early part of this volume, as the soundest opinion which can be entertained on the subject, that God is the author of disease, or that it "is really the result of the Divine appointment in every instance where it occurs;" and also that the existence of disease, with pain, as its general attendant, affords abundant evidence of design, wisdom and power; the remaining chapters are principally devoted to the processes of reparation, which occur in disease, to the influence of which the recovery of very many patients may mainly be attributed, whilst without this "vis medicatrix naturæ," under the most favorable circumstances, the physician often fails to attain a successful issue. In illustration of this, the author first selects from the class of fevers, which he divides into three distinct kinds—the periodic, the specific and the continued.

The next illustration is taken from the process of cicatrization; and the last from the power of selection that the absorbents appear to possess in the performance of their office. We deem it unnecessary to pursue the author in these various illustrations; in every point which he aims to establish, perspicuity of style is added to familiar illustration.

Upon the medical views which are found scattered through the pages

of the volume before us, it is also needless to offer special comment. The book of Dr. Duncan may be read with interest and pleasure.

The "Old Dominion," in the Transactions of its Medical Society, has presented us with a pamphlet containing sixty-two pages, upon the principle, we presume, that in any good work she "never tires." In this pamphlet are recorded the proceedings of the last meeting of the Society, together with the address of the President, Beverly R. Wellford, M. D.

The estimation in which Dr. Wellford's address was held by the members of the Medical Society of Virginia, was evidenced by a resolution requesting its re-delivery before the Legislature and citizens of that State—a compliment which the merit of the production well deserved.

The occasional vein of satire which steals into its pages, applying its potential cautery, where cautery were most needed, and leaving the healthy blush to bespeak the skill of the operator, however distasteful to those who need

"Some sweet oblivious antidote"

to cleanse the inward part, may not be the least profitable part of the address. There is much in it which forcibly reminds us of the address of the late Dr. W. P. Hort on Medical Education, delivered before the Louisiana State Medical Society, at its Second Annual Session. In each paper the necessity for reform is ably advocated, and the principles upon which it is to be accomplished have in each writer an unity of sentiment.

Dr. Wellford urges upon Medical Colleges and Universities the consideration of the resolutions and suggestions of the National Medical Association, which are to be found in the published proceedings of that body.

Without wishing to undervalue the importance of properly regulated medical schools, and the benefit to be derived from their able teachers, Dr. Wellford argues that there should be no "inherent property of the diploma" by which an individual is authorized to practice medicine, but that license to practise should be granted only upon presentation to a Board of State Medical Examiners,—a diploma,—which diploma shall be considered a *sine qua non* to entitle the applicant to an examination by the Board. Incident to such a plan would be the establishment in

every State of a Board of Medical Examiners. The Medical Society of Virginia, impressed with the expediency and utility of such a Board for the furtherance of medical reform, have memorialized the Legislature of that State upon the subject. Regarding the subject in this light, the diploma would be an academic honor, but powerless to start into actual existence "physic and physicians" to administer to "the ills that flesh is heir to," a sovereign balm for every wound.

As we might deter many from seeking to read the address in full, were we to pursue it further, we shall close our remarks upon it in the writer's own words: "And when we have our local societies, our State societies, and the great American Medical Association, all fully organized, all actuated by the same magnanimous impulse, and all acting in united, harmonious concert, we shall present a phalanx of talent and power and influence irresistible and invincible."

Apropos of State Medical Societies—we perceive by the Transactions of the "Medical Association of the State of Missouri," to which we now direct attention, that that body desires to have established a Board of Medical Examiners, believing that the license law is a desideratum of much moment. It is somewhat singular, that whilst other States are just becoming convinced of the salutary effect of some *protective policy*, Louisiana, tolerating no restraint—no let or hindrance to the broad and free exercise of *equal rights*, even though there were the semblance of justice in the restraint imposed, has, by the *concentrated wisdom* of the Legislature, medical and non-medical, decreed in favor of *no* license law—a gratuity for which they will, most probably, receive the thanks of certain individuals of doubtful reputation, of *assumed* medical skill and of unblushing impudence—a patrimony with which we wish them God speed!

The Missouri Medical Association also desire the passage of a law, "rendering any person or persons liable to indictment, conviction and punishment at law, for selling impure, sophisticated, or deteriorated drugs or medicines; and that the party, when convicted, be punished by fine, or imprisonment, or both, as the Legislature may deem best for public security."

The Society of Missouri, in its second volume of proceedings and addresses, has published a neat pamphlet of 116 pages, giving evidence of talent and industry.

Without making invidious distinction, we may allude in terms of commendation to the report of Thomas Reyburn, M. D., on the domestic adulteration of drugs and liquors; the investigations of the Committee

show the alarming extent to which the sophistication of drugs and chemicals is carried on in St. Louis, as well as in the Eastern cities—exhibiting a fraudulent rapacity on the part of the vendor; the profits every where on the sale of medicines being large, which should receive the stigma of public condemnation, and the marked opprobrium of the profession.

Not only in the more expensive articles was adulteration detected, but in the writer's remarks upon vinum colchici, he observes much that is sold "in this city (St. Louis) is almost worthless." With a view of reforming these abuses numerous remedies are proposed, amongst them the appeal to the Legislature, the substance of which resolution has already been given.

The Report of Professor Charles A. Pope, on Surgery, like all the productions of that gentleman, is characterized by much research, a facile style of writing and a judicious selection of topics. The topical use of water dressings in Surgery, although by no means new, is regarded as worthy of high consideration by Professor Pope. "Employed either warm or cold, in its solid, liquid or vaporous state, simple or medicated, it were, perhaps, not difficult to show that water fulfils a majority of the indications presented in the topical management of external lesions. In all such injuries and conditions, it well deserves the high encomiums of being called one of the greatest antiphlogistics, and the vulnerary par excellence."

Another subject, connected with Surgery, which is eliciting great attention at the present day, comes under the consideration of the writer —that of ovarian tumors—with regard to which, by operative interference, such contrariety of opinion exists. "There is," it is remarked, "perhaps no point in surgical practice which at present produces more excitement—some characterizing gastrotomy as nothing more nor less than cruel butchery; whilst others laud it as not only justifiable, but in a majority of instances even advisable. . . . . Certain it is that modern experience has amply demonstrated the fact of the opening of the peritoneal sac in such attempts, being much less dangerous than was formerly supposed." L'Aumonier was the first who removed diseased ovarium. Morand was also an advocate for operative interference.

Dr. Washington L. Atlee operated in eighteen cases, and at the expense of much time and labor arranged in tabular form all the known operations of ovariotomy, from 1701 to 1852, comprising two hundred and twenty-five cases, including their synoptical history and analysis.

According to his resumé of cases, the rate of mortality for the operation of ovariotomy is sixty-two and a half per cent, a rate which compares favorably, upon the authority of Dr. Pope, with "the other great operations in surgery, as amputations, and the ligatures of the great vessels; the former being, by Malgaigne's computation, within a fraction of thirty-nine per cent, and the latter, according to Norris, thirty-three and a third per cent."

Correct diagnosis is of the last importance for the reputation of the Surgeon; difficult in many cases as it may be, as well as to spare the patient the infliction of the knife, in order to discover that no tumor existed.

Vesico-Vaginal Fistula is next adverted to at some length, which, owing to the triumph of modern Surgery, is no longer regarded as an incurable malady; all praise is awarded to Dr. Sims, of Alabama, for his successful labor to relieve this lamentable female complaint. As late as the year 1846, notwithstanding the progress then made in its treatment, it was solemnly declared by an eminent French Surgeon, 'that there did not exist in the science a complete authentic observation of a perfect cure of vesico-vaginal fistula, dependent on a loss of substance of the bas-fond of the bladder.'

Difficulties have been overcome, and with the progress of science, the way to successful treatment has been opened, resulting in happiness and comfort to many deplorable patients.

There are many other reports worthy of notice in the transactions of the Missouri Medical Association, but upon which we must withhold all comment, lest we proceed to too great length.

"Hints to the People," as contained in Doctor Wood's publication, is a readable little book. The medical profession and the public generally may thank the author for having spoken plainly upon subjects touching a common interest; his desire is to elevate the profession, and to this end he points out existing evils, and for many of these suggests a remedy. Having examined "systems" and "theories" with an evident dislike to be bound down by the one, or to be carried away to any fanciful regions of exaltation by the other, it becomes the settled conviction of the writer, that "the entire profession of medicine may be in accord as to certain facts, but may differ as to the general law influencing the facts. The facts alone are part of the profession." And again, "The science of medicine, then, by its very nature, by the principles which govern the human mind, by every stimulus of interest and

ambition, can limit itself to nothing short of attainable truth, and it cannot be limited by, or bound to any system. In the science of medicine there can be no 'old school' or 'new school,' and the use of such terms creates a false impression. . . . . If any system or scheme sets itself above that professional investigation which is bound to seek for truth, and claims to be a new school or system, the claim and the pretension are alone proof that it is not true."

The registration of births, marriages and deaths, by which many important facts connected with health and disease are made available, is urged upon the consideration of legislators, as involving matter of great public and national interest, no less, indeed, than the operation of moral and physical causes upon the health and prosperity of the people. The legislators of Louisiana, we may presume, thought differently at their last session, upon what ground, we know not, inasmuch as they refused favorably to entertain the subject when presented to them by a medical gentleman of this city.

Having endeavored "to draw the distinction between the true nature of the profession of medicine and the popular view taken of it," the author finishes by calling upon all educated classes, the pulpit and the press, to aid in the work of medical reform. G. T. B.

Part Fourth.

MISCELLANEOUS MEDICAL INTELLIGENCE.

ORIGINAL.

I.—*Severe Lacerated Wound of the Hand—Amputation of Several Fingers—in which an important principle in Surgery is established.*

BY J. C. HAMILTON, M.D. OF MOBILE.

A sailor, aged about 30 years, was admitted into the City Hospital for a severe gun-shot wound of the left hand, from the bursting of an old musket, about thirty hours before. The hand was wrapped in some rags, and a handkerchief tied tightly around the wrist. I saw him on the morning of his admission; he was then a good deal prostrated from loss of blood and the fatigue of moving.

Upon examining the wounded member, it was found that the whole of the thumb was blown off, with the exception of about half an inch of the metacarpal bone, which was thrown back upon the wrist, entirely denuded of muscle, attached by a small strip of skin. The metacarpal bones of the first and second fingers were found to be completely shattered; the wrist joint opened on the radial side, and the soft parts extensively torn up, both on the dorsal and palmar surface. I now determined to amputate the forearm as soon as some little reaction should be established.

After the lapse of about two hours, it then being 12 M., I returned to the Hospital, prepared to proceed to the operation, Doctors Nott, Ketchum and Miller being present. Upon making another examination, however, previous to operating, it was suggested by Dr. Nott, that an attempt should be made to save the third and fourth fingers, as they appeared to be uninjured—urging the fact that should he recover with two fingers, they would be much more useful than the stump of an arm—that operations had been performed at joints successfully; and even should it be necessary, (as his constitution was a good one) the amputation could be performed above at a future period. In view of these considerations, it was determined to make the attempt. The chloroform was now administered by Dr. Miller; acting perfectly, the patient coming under its influence in a few minutes, and remained sleeping as quietly as an infant throughout the operation, which was an exceedingly tedious and troublesome one. The operation was now commenced, Doctors Nott and Ketchum assisting. Two flaps were made, one on the dorsal and one on the palmar surface, from as much of the skin and flesh as was apparently sufficiently sound for the purpose, the incision commencing at the phalangeal articulation of the second finger, extending in a semicircular direction to the lower extremity of the radius; the flaps being held back, the metacarpal bones of the two first fingers were disarticulated at the carpus;

when it was found that the bones of the medial side of the carpus, and the metacarpal bone of the third finger were comminuted. The flaps were immediately extended and the ring finger also disarticulated, and the fragments of the carpal bones extracted piece by piece, consisting of pieces of the scaphoid, and the whole of the trapezium and trapezoid.

The hemorrhage was trifling, it being necessary to tie only one vessel, the posterior carpal; some small branches sprung, but they were easily controlled by torsion.

The wound was now closed; the flaps being brought together and retained by sutures—this being sufficient to cover the wound only partially, the long surface, however, being well covered and the wound dressed with dry lint and the uniting bandage.

The patient did well, no unpleasant symptoms occurring at any period. The wound healed more kindly than was expected, covering the long surface by the first intention, leaving only for treatment a granulating portion, which also healed kindly. In a little more than a month the wound was entirely closed and the patient discharged.

I have frequently seen the patient since at my office, entirely well, and gradually gaining some motion in the remaining finger. He is now, I believe, acting as watchman on one of the river boats.

The chief point of interest in the above case is the fact of the possibility of such an extensive operation being performed at the wrist joint, without bad effects, and the possibility thereby proved of saving, in cases of extensive injury of the hand or foot, portions that may be much more serviceable in after life than a bare stump. Two fingers or even one finger, as in this case, are certainly much more useful than a naked stump. It is merely one more case illustrating the importance and utility of attempting to save as much of an injured limb as the circumstances of the case will possibly allow.

September, 1852.

II.—*Chorea Cured by Strychnine.*

Prof. Forget we believe was the first (says the Journal des Connaiss. Med. Chirurg· for July and August, 1852) to direct the attention of the profession to the efficacy of strychnine in the treatment of chorea; and recently Dr. Landrel, in a communication to the *Redacteur* of the above Journal, reports a violent and threatening case of chorea, which was speedily relieved by strychnia. He relates the case as follows: The little village of Montreal, in France, was suddenly thrown into great commotion last January, by the rumor that a very strange disease had seized a little girl, 12 years of age. She could do nothing, said the people, but dance and make hideous faces; that she was, in fact, possessed of the devil. On visiting the patient, the mother of the little girl remarked to the doctor, with tearful eyes, "My daughter is *folle*—crazy; she does nothing but dance from morning until night; she is unable to stand upon her legs, and must be held in her bed." It turned out to be a severe case of

chorea, induced by the father attempting to strike the child. The girl was of a nervo-lymphatic temperament; delicate, a blonde, with blue eyes and feeble muscular power.

The chorea involved all the muscles, which were unceasingly in motion, except when asleep. When raised she could neither walk nor stand, nor could she pronounce a word. Her head was constantly thrown back, and her features were distorted. The author goes into full details of all those symptoms which constitute a well-marked case of chorea. He ordered cold aspersions, and one centigramme of powdered belladonna, on the 19th January; and on the 20th the same symptoms persisted; deglutition had now become difficult, and food fell from her mouth as she attempted to take it. By throwing cold water over the face, as recommended by Simpson, she was enabled to take a little soup. The affusions were now repeated, and the dose of belladonna was augmented to 2 centigrammes. On the following day acute bronchitis supervened, when the cold water was suspended and the belladonna was continued.

By the 26th the patient was a little better, and after this date up to the 28th of February, she remained stationary, although the same treatment was continued; but at this time she had neither power to walk nor to speak. At this stage of the case, despairing of effecting a cure by the means already in hand, Dr. L. began to give the syrup of strychnia in coffee spoonful doses, three times daily the first three days, and afterwards twice per diem. On the sixth day from the commencement of this treatment, the patient was enabled to walk and pronounce a number of words; and on the eighth day she perfectly recovered her speech; and on the twelfth day of the treatment by strychnine, she was perfectly cured.

In concluding this article the author observes, that the strychnine given in the preceding case did not produce the slightest convulsive twitchings; there being neither rigidity in the muscles of the neck or jaws. During the treatment, the patient took in all only five centigrammes, and this might seem to justify some doubts as to the efficacy of the remedy; but when it is remembered that the disease was and had been for some time stationary, before the strychnine was given, and began soon after this medicine was ordered to improve rapidly, all doubt on this point must be at rest.

The disease continued about two months, and during seven weeks of this time she could neither walk nor speak.

III.—*Cauterization of the Lobe of the Ear a Cure for Chronic Rheumatism.*

It has already been reported through the medical press of this country, that cauterization of the lobe of the ear is an instantaneous cure for sciatica; but we can now go one step farther, for it appears from the following facts, reported by a French physician—M. Henry—that he was induced to try the same means, and to his astonishment with success, for the relief of chronic rheumatism. A man, whose age is not given, had suffered for five years with this disease in his right arm; the pains were deep-seated, and almost insupportable. Mr. Henry had resorted to all the reme-

dies recommended in such cases, but without success. Says M. H., when I proposed to burn or cauterize a certain spot on his ear, he *laughed* at me. He, however, consented; and great was his astonishment, when, at the end of four days, the pains in the arm entirely ceased! This cure, he proceeds to observe, was reported over the country, and in a few days afterwards Michel Boda of M * * * applied to me, and requested to be treated in the same manner for a rheumatism in the left arm. He was subjected to a similar treatment, and with a success equally prompt and decisive. With these facts before us, continues M. H., I ask how are these cures effected? Here he proceeds to trace the course of the great sympathetic nerve, which arises from the superior cervical ganglion, he remarks, behind the ear, and after having traversed the thoracic and abdominal cavities, then becomes confounded with the sacral pair, whence proceed the nerves of the inferior extremities.

IV.—*Excessive Obesity removed by Tincture Iodine.*

In the *Medicinisches Correspondenz-Blatt*, Dr. Betz reports a curious fact regarding the efficacy of tincture iodine in obesity. A female æt. 49, uniformly regular, had complained for three years of pains in her breasts; these glands, at the same time, were so large, that they descended as far as the hypochondriac region, and the abdomen had likewise grown so large that the woman could neither stoop nor attend to her domestic duties. There also existed patches of fat under the axilla and on the back. The limbs remained natural. M. Betz placed this female upon the use of tincture iodine, of which she took 20 drops daily. Speedily the fat began to disappear,—so rapidly indeed, that at the end of two months this woman was reduced to her usual degree of embonpoint and natural size. Will some of our readers, to whom applications may be made in such cases, test the tincture of iodine?

(*Ed.*)

V.—*Acetic Acid as an application to Primary Venereal Chancres.*

Some French Surgeons, and among the number MM. Ricord and Henrotay, speak in high terms of the virtues of acetic acid as a local application to venereal ulcers in the primary stage. The former of these believes that acetic acid neutralizes the venereal poison, and thus obviates all danger of secondary or constitutional symptoms. It may be applied as any other caustic, and repeated as frequently as the condition of the chancres may require. Under its application the ulcer speedily assumes a healthy aspect and promptly cicatrizes. (*Ed.*)

VI.—*Injections of Acetate of Lead in Chronic Cystitis.*

The following formula has been highly extoled as an injection in chronic diseases of the bladder:

℞		
	Aqua Distil.	192 grammes.
	Mucil. Gum. Arab.	16 "
	Acet. Plumb. (cryst.)	50 centigram.

M.

The injection must be repeated several times; and at each sitting from 32 to 64 grammes of the liquid must be allowed to remain in the bladder from five to ten minutes. The injections must be repeated every second day for one or two months, *selon la gravite de la maladie.* (*Ed.*)

VII.—*Chloride of Sodium in Intermittent Fever.*

Several of our "Exchanges" speak of the efficacy of the chloride of sodium in the cure of intermittent fever; but the most elaborate and carefully prepared paper on this subject is from the pen of Dr. Lattemore, and may be found in a late number of the *American Journal of the Medical Sciences.* In this essay Dr. L. details the method pursued by M. Piorry—his extreme tact in detecting enlargement of the spleen—his success in reducing this organ by the use of chloride of soda. Most of the cases of intermittent fever met with in the Parisian Hospitals are of long standing and imported from Algiers, says Dr. L., and they are always accompanied with enlarged spleens and difficult to cure. "We witnessed," says this writer, "many of the experiments of M. Piorry, and in the great majority of cases the fever yielded to salt quite as readily as to the salts of quinia." M. Piorry's method of administering the chloride of soda is, to give half an ounce in a cup of thin soup during the apyrexia and fasting. It generally agrees with the stomach; rarely purges or vomits. Three doses usually suffices to effect a cure.

It seems to be particularly applicable to cases attended with enlargement of the spleen, which is readily diminished in size, after the first dose of the salt is taken into the stomach. From all we can glean on this subject, we are persuaded that the chloride of soda will cause a reduction in the dimensions of the spleen, particularly if the hypertrophy of this organ be the result of exposure to malarial influences. We consume, perhaps, two ounces of salt daily at dinner, and although we have been exposed for years to the so-called malarial influences, yet we have *never* suffered from an attack of intermittent fever! Let the profession investigate this subject and make known the results. (*Ed.*)

VIII.—*Treatment of Typhoid Fever in the South.*

In the September No. 1852 of the Charleston Medical Journal, Dr. Douglass gives the profession his experience in the treatment of typhoid fever. It will be perceived that he condemns the use of quinine in this disease, *toto cœlo*, and thus tilts against the views of one of our much esteemed correspondents. Hear Dr. Douglass tell his 40 years experience in the treatment of continued fever. (*Ed.*)

My own plan of treatment is *expectant*; and in the few remarks I shall make, they will be of rather a negative character, and intended to guard against the use of remedies which I know to be injurious, rather than to lay down any fixed plan or course of treatment.

In the first place, I never have recourse to quinine. I have, again and again, met the disease at the threshold, when it appeared to wear the livery of an *intermittent*, the patient appearing lively in the morning, and having no symptom of fever, but during the day complaining of slight chilliness, lassitude, and threatening symptoms of a regular chill, followed by pain in the head and other parts, and fever, which would go off in the course of the night, leaving the patient, as above described, in the morning. This train of symptoms frequently continued for several days. Under these circumstances, I have had recourse to every plan I could devise, for the purpose of "breaking up" the disease before it should be fully developed; but invariably with disappointment to myself, and, I believe, frequently with increased suffering to the patient. In my practice, quinine, given in doses large or small, and in every form, in no single instance arrested the disease, but often increased the irritability of the stomach, the pain in the head, and every symptom connected with the fever. I have long since abandoned it as absolutely pernicious.

In regard to purgatives, they, like blood letting, have no salutary control over the disease, but prostrate the patient more rapidly, and always tend to protract convalescence. There are some cases, particularly among white patients, in which the application of a few leeches or cups to the head, nape of the neck, epigastrium, etc., according to circumstances, will exert a decidedly happy influence. But such cases are rare, and among plantation negroes, will scarcely ever occur. When there appears to be no local determination, the excitement equally diffused, the skin hot and dry, and the pulse quick and somewhat tense, sponging the body with cold water, during the first few days, will generally produce a beneficial result. In cases where the patient is restless, with a hot, dry skin, and the head, stomach, bowels, or kidneys appear to be suffering, the warm bath will usually add greatly to the comfort of the sick. Warm fomentations, and poultices to the stomach and bowels, and sinapisms to the forehead and back of the neck, will often relieve pain and uneasiness in those parts, and should be continued as long as they appear to do good. But if they fail to afford prompt relief, I apply blisters, without waiting for symptoms to determine "the blistering point." In many cases, where the patient is harassed, day after day, with a deep-seated pain in the head, above and behind the eyes, attended with intolerance of light, etc., the application of a blister to the forehead, extending from temple to temple, gives instant and permanent relief. When the stomach is affected, either with pain, soreness or nausea, I always blister in the early stages of the disease, and also when it is spending its force on the bowels, and invariably with good effect. Cold water, with or without gum acacia, may be allowed freely throughout the attack. I have long since given up the mercurial plan of treatment, though I would not object to a few small doses of blue mass at the commencement. But castor oil, calcined magnesia, or enemata, will be found to answer every indication, when laxative medicines are required, which is seldom. When the bowels act too freely, morphine, McMunn's elixir, or other opiates, are preferable to any astringents. I have sometimes observed very decided improvement after alarming hemorrhage from the bowels. In protracted cases, where the strength and vital powers of the patient are greatly exhausted, and a stimulant is required, the carbonate of ammonia, or spiritus mindereri, when it does not nauseate the stomach or irritate the bowels, answers a very good purpose; but if it produces the latter effects, it should at once be discontinued. Brandy, when a stimulant is indispensable, is preferable to all others. But

few cases will need active stimulation, unless the powers of life have been wasted by too active treatment at the commencement of the disease.

To conduct a patient safely through an attack of typhoid fever, the physician should economize the recuperative energies and strength of the sufferer from the beginning. As it is impossible, so far as we are acquainted, "to break up" the disease by active remedial agents, we should avoid them, and commence with rather a temporizing routine of remedies, to be administered as exigencies demand; in a word, we should do but little. I would infinitely prefer giving nothing but cold water and thin gruel, and applying blisters over the parts affected, and doing nothing else, to resorting to the vigorous, heroic attempts to arrest typhoid, as we would intermittent or bilious fever. I am satisfied that in this affection, as in scarlatina, the mortality has not been lessened by efforts to stay its course.

I was taught, in my pupilage, by the venerated Rush, that there was a time to stimulate, a time to deplete, and a time to do nothing, and my long experience in typhoid fever has convinced me, that in very many cases, the last alternative is far preferable to an energetic prosecution of either of the former.

IX.—*Starch in Cutaneous Diseases.*

That distinguished Dermatologist, M. Cazenave, has recommended the following formula as an external application in the annexed list of acute diseases: Acute eczema, impetigo, herpes, acne rosacea, prurigo of the axilla, anus, genital organs, etc.

This is the prescription to be used after washing the parts in a weak alkaline solution:

Take of oxide of zinc one part; powdered starch fifteen parts; mix, and cover the affected parts thoroughly with the powder. A small portion of powdered camphor may be added to the mixture with decided benefit, where much pruritus exists.

X.—*Nitric Acid in Hooping-Cough and Asthma.*

Dr. Anoldi (*Canada Medical Journal*) extols the use of nitric acid in hooping-cough, at all ages—whether it be a child at the breast or a full grown adult (!)—in either condition of life its virtues, he declares, are unquestionable and prompt. He gives the nitric acid in solution, as strong as lemon juice, sweetened *ad libitum*. He brings forward a number of cases in which the disease was not only promptly mitigated by the nitric acid, but all of them shortened at least one half the usual period required to exhaust itself.

Some of the Physicians of New Orleans, and among the number Dr. Fenner, has tried the nitric acid in asthma, and with very satisfactory results in a few cases. (*Ed.*)

XI.—*Practical Chemistry a Branch of Medical Education—Considered in a Brief Letter to his Class.*

BY ALFRED L. KENNEDY, M. D., PHILADELPHIA.

Dr. Kennedy is, we believe, the first medical gentleman who has attempted to establish a Laboratory in this country to teach *Medical Chemistry.* This letter, which seems to be addressed to his class, sets forth in strong and appropriate language the claims which this branch of Medicine have upon the student and the profession. He compares the course of Medical Chemistry as taught in the United States with the same branch of the profession as pursued in Europe ; and of course the odds are immensely against us, as in every thing pertaining to medicine.

Dr. Kennedy closes his instructive letter in the following language :

Finally. Your correspondent, after a careful and impartial comparison of European colleges with our own, knows no requisite to graduation (save hospital attendance) in which we are so deficient as in that of Chemistry. How much of that deficiency has arisen from a want of practical skill on the part of those who have held the position of chemical professors, it would be out of place here to inquire. Unfortunately, the general ignorance of this science in other walks of life, creates a more absolute reliance upon the physician, and compels a more frequent reference to him. Verily, in no other enlightened land is so much required of the practitioner as in ours. Especially in rural districts, is his head supposed to be a treasury of all knowledge, and many and varied are the drafts upon him, be it in the examination of a pustule or a mineral; in tasting a porridge or testing a medicinal spring ; in a case of labor or one of suspected poisoning. Should he not honor his clients drafts at sight, alas for the reputation of our village doctor!

Jealousy of innovation, which, properly maintained, is the safeguard of medical teaching, as it is of medical practice, will demand much proof before any change is determined on. This we must always be prepared to furnish. Jealousy of dictation, which is characteristic of our people, actuates also our profession, and however earnestly the introducer of any salutary measure may advocate it, unless the mass which surround him, and who have witnessed his success, second his appeal, it falls unheeded on the public ear. To you, then, who have enjoyed and acknowledged the value of laboratory practice, will the profession look for testimony in its favor.

Let us, then, continue earnestly and respectfully to call the attention of professors, laity and students, to the exalted position which chemistry occupies among her sister sciences, and to the imperative necessity of studying it both theoretically and practically, if one would grasp and retain its great teachings. In things commercial, American earnest energy is universally acknowledged ; but the sneering expression is still not unfrequently heard on the continent of Europe, "l'Amerique n'est pas grand chose en rapport avec la science." Let us prove this destitute of even seeming foundation, by the most thorough cultivation of that, which is emphatically the leading science of the nineteenth century.

XII.—*M. Racemier—His death—Honors paid to distinguished Medical Men in France.*

M. Racemier, Physician to the Hotel Dieu, Ancient Professor to the Faculty of Medicine and the College of France, Member of the Academy of Medicine, expired suddenly of pulmonary apoplexy on the 28th of January, 1852. The funeral of the illustrious Professor took place on the 1st of July with great pomp. In the funeral cor-

tege the Faculty was represented by MM. Adelon, Cruvielhier, Bouillard, Trousseau, Moreau, Requin, Malgaigne, Nelaton, Denonvilliers, etc.; the Academy of Medicine by the President, M. Dubois, and its Annual Secretary, M. Guibert. Besides these, a large number of the most renowned Physicians assisted at the funeral obsequies. The desire to pay homage to the memory of the deceased was not confined to the *Medical* profession; for some of the most illustrious political characters of France were in attendance—such as Pastoret, Berryer, General of Saint Priest—of Narbonne—of Renneviile, Poujoulat; and also Profs. Thenard, Binat, Cauchy, de Portels and Ozanau.

At the cemetery of Mount Parnassus, wherein the body was entombed, four eulogies were pronounced over the tomb of the distinguished dead. These orations recounted the achievements and the services which Racemier had rendered to science and to humanity. They were eloquent and lofty in their tone and spirit. France well knows how to reward the labors of her distinguished sons during their lifetime, and to consecrate their memories and their services after their death. *Vive la belle France.*

Ed.

XIII.—*Resuscitation from an overdose of Chloroform.*

The *American Journal of Medical Sciences* contains the following hints by Dr. Herepath, on the subject of poisoning from chloroform.

In resuscitating from an overdose of chloroform, galvanism is the only chance. Keep up a current of electricity through the fifth nerve, medulla oblongata, phrenic nerves, and diaphragm, as long as respiratory movements can be produced, and let the patient have plenty of fresh air or oxygen gas, and the case must do well, for the blood must remain fluid for a long time, and circulation will go on as long as respiration continues to go on artificially. The blood and the air cells throw off their load, and in proportion as the pneumo-gastric, medulla oblongata, and motor nerves, slowly resume their functions, so respiration begins to assume a less artificial character; at length the cerebrum aids us, and respiratory movements, both voluntary and involuntary, keep up the functions of life unaided.

XIV.—*Hooping-Cough cured by Cauterization of the Glottis.*

A new method of treating that intractable disease, the hooping-cough, has been lately brought forward by M. Joubert. Out of 98 cases treated by cauterization, (30 of which M. Joubert rejects as unworthy of reliance) the remaining 68 were divided into three series, according to the periods at which the treatment was commenced. Of these 40 were rapidly cured, 21 experienced marked relief, and in the remaining 7 cases the treatment failed to confer any benefit whatever.

XV.—*Treatment of Typhoid Fever.— It must be modified to suit the locality, season, etc.*

Typhoid fever, so called, is engrossing much of the attention of Practitioners throughout the South and South-west; nor is this surprising, when in nearly every Medical Journal, issued in these latitudes, we find speculations as to its communicability, treatment and identity or non-identity with the various forms of marsh or malarial fever. Judging from observation, some little reading and the letters we receive from almost every section of the South, typhoid fever has become the prevalent disease, and threatens at no very remote period to absorb all other forms of fever. In view of these facts, we feel constrained to lay before our readers all the information we may be enabled to glean on this interesting subject. To this end, we invite their attention to an instructive article in the October number of the *Southern Medical Journal*, from the pen of Dr. Wilburn.

After contrasting the symptoms of typhus and typhoid fevers, and showing the non-identity of the two diseases, Dr. W. proceeds to detail his method of treating typhoid fever. We shall sum up in a few words (as his article is too long to be inserted entire) the main points in his paper. He condemns bleeding from the arm, as it always kills in East Alabama. Quinine he proscribes in toto, in every stage of the disease ; it has always proved detrimental in Dr. W.'s hands. Blisters do more harm, as a general rule, than good. He recommends us to maintain a cheerful spirit in the breast of the patient, as it assists in restoring and maintaining the powers of the system.

From the foregoing sketch, the reader will observe, that Dr. W., who has had much experience in this disease, condemns venesection, quinine and blisters, as therapeutic agents in typhoid fever. He says, he varies the treatment to suit the wants of each particular case. He treats, in a word, "symptoms rather than a name." Then why condemn bleeding, quinine, blisters, etc., in "*typhoid fever* ?" Suppose the symptoms should call for one or more of these agents, they must not be brought into requisition *because* it chances to be a case of typhoid fever, and these have been condemned in this disease ! What of such reasoning ? But we pass on. When called to a case, Dr. W. gives 10 grains of calomel or 15 of blue mass ; this is worked off by soap and water injections, assisted by a saline cathartic in ten or fifteen hours. He urges the free and frequent use of enemas in typhoid fever, and declares they exercise a soothing effect upon the nervous system, if given at night. Here we let the Doctor speak for himself. *Ed.*

After a free evacuation of the bowels, I administer the following powder every four hours :

Hydr. Sub. Mur.	grs. iii
Ipecacuanha,	grs. ii
Pulv. Doveri,	grs. v

Should the pulse be quick, I do not hesitate to give the veratrum viride. To

an adult, I commence with six drops (Norwood's) in about half a fluid ounce of sweetened water—in ten minutes seven drops; in ten minutes more eight or ten drops, and wait the result, which is free emesis, a reduction of the pulse, a soft skin, and gentle perspiration. I then continue the veratrum, giving six drops (the first dose) in four or five hours, and increasing one drop every four or five hours until ten drops are reached; I then continue ten drops every six hours, and gradually increasing the period to twelve hours. Some patients cannot reach ten drops; in such cases, the practitioner should stop at that number which produces emesis, and falling one drop below it, continue the dose every six hours, and gradually extend the period.

The veratrum should be followed in every instance by free drinks of slippery elm or gum arabic water, as also by the following powders, every two hours, extending the time as the period of the veratrum is extended.

Ipecac,	grs. ii
Dover's,	grs. iv

I speak from experience when I recommend the veratrum viride to the profession. I am as much opposed to nostrums as any one, but I do think that when a medicine has been suggested to the profession which answers a desideratum—might I not say, wipes away an opprobrium medicorum—it is but justice—it is but a just regard to the high and noble claims of science, that it should be fairly tested. I have derived the most flattering results from its use, and as yet have seen nothing in its action to induce me to discontinue it. I am no enthusiast of any remedy, and would by no means pen one line concerning any drug, which might induce practitioners to essay its virtues at the imminent peril of their patients. That the veratrum controls the action of the heart, is beyond question, and that this was a desideratum in medicine, is equally undeniable. The digitalis has hitherto been employed for this purpose, but that it is uncertain and even dangerous in its action, is known to every one who has used it. It frequently proves powerless, and not unfrequently, like a cowardly giant, watches the auspicious moment when it may exert its feigned prowess upon a helpless and prostrate victim.

The veratrum, when properly administered, is certain in its action, and does not, like the digitalis, apparently sleep until it has gathered sufficient force to storm and overpower. I have employed the veratrum in other diseases beside typhoid fever. Pneumonia, pleuritis, puerperal peritonitis, palpitation of the heart, and the convulsions of children, and in all with signal benefit to the patient.

It is objected that the veratrum inflames the alimentary canal. This it will not do if given as I have advised. I should state, however, that I use the elm bark fresh from the tree, and not a worm-eaten ground Indiana elm. They who complain of its irritating qualities, gave it, probably, too frequently, or without water, or an impure preparation. I have administered the medicine in numerous instances, and attempted to watch closely its effects, and never yet have I observed the results spoken of by other physicians. It sometimes produces stupor in children, resembling approaching coma, but if continued until emesis is brought about, this symptom speedily disappears.

I have been told by some practitioners that they considered the veratrum a humbug, and never gave it. Such have set aside a valuable remedy, and worthy to be tried, and as it is not yet too late, I say, try it.

Some, on the other hand, are fearful to use it. These individuals give frequently a more dangerous medicine—the digitalis purpura. I have written more upon the veratrum than I at first intended; but should what I have written prove effectual in inducing practitioners to try the virtues of this medicine, I shall feel amply compensated for my labor.

After evacuating the bowels, the use of the compound powder, the veratrum, injections, etc., as described, I cup and scarify the epigastrium and right iliac fossa. I then order a poultice of corn meal and Cayenne pepper to be applied over the bowels every hour, with sinapism to the spine. Should the poultices not prove sufficient to allay abdominal heat, I put on a sinapism over the bowels to remain ten or fifteen minutes, and re-apply the poultice. This sinapism should be repeated every six or eight hours until the heat of the surface is subdued. The poultices and injections should be kept up during the whole course of the disease. The injection should be given at least once, if not twice, every day. The kind of enema must vary according to circumstances—such as warm water; salt and water; warm water, laudanum and starch; acet. plumbi, and nit. argenti, etc. These, as many other things, depend upon the judgment of the physician. As a diaphoretic, tonic and diuretic, I use the seneca and spirits nitre; a free drink of the former, and teaspoon doses every three or four hours of the latter.

In severe cases, I blister the entire spine and give ice freely. There are many opposed to the use of ice; more especially those of the Vulcan school. Some cases no doubt die, where ice has been used; but should it be rejected because a few die under its use? This does not prove that ice was the cause of the death. Calomel is given, and the patient dies; do you then reject it from your practice? And so we might say of any medicine; patients die under the best treatment.

In low muttering delirium, the ice applied freely to the scalp, and given internally, in pieces, to dissolve in the stomach, will, in nine cases out of ten, arouse them to rationality. I write what I have seen at the bedside. It relieves the heat and distress of which the patient so frequently complains whilst racked by the fever. It should be given in as large pieces as can be readily swallowed. I sometimes give lemon water with ice, but do not order a free drink of any iced water. Its solid state is the best state in which it has been administered. Applied in iced bags or bladders to the abdomen, and given freely internally, it is our sheet-anchor (I speak positively) in dangerous intestinal inflammation. I know that there is a prejudice with many of the profession, so deep and lasting against the use of ice and cold water, that they will not credit the treatment of any one who embodies them among their therapeutic agents. Such men add but little to the progressive march of medicine; they dare not step one side an old and routine practice for fear of committing an error; they err in being too cautious, and condemn because they do not experiment. I do not intend to say that practitioners should experiment upon the lives of their patients—far from it; but I do say, that when life is fast failing, the physician should do all in his power to save it, and if his usual remedies prove powerless, he should try others which have been highly recommended. Short of this, he does not perform his duty.

I have now given a short and very imperfect sketch of my treatment in typhoid fever. I have not thought it proper to write the varied changes which are so often observed in this fever, preferring to leave the treatment of them to the judgment of the physician, as no two cases will be precisely alike, but varied in their progress by constitution, habit, vicissitude of weather, etc. My purpose has been to discuss plainly and consisely that form of treatment which I believe to be most successful in typhoid fever. I wish also to be understood as speaking of this locality; for I write from experience in this place alone, and do not by any means attempt to dictate to any one; but should what I have written attract the attention of any member of the profession, and "enable him hereafter to diagnosticate correctly, and to treat the disease successfully, I shall feel amply rewarded for the little toil it has cost me to write this article, and feel too, at the same time, that I have done the profession some service."

Dr. Wilburn makes an *addendum* to his valuable paper, in which he states, that as there are many who do not believe in the existence of typhoid fever as a distinct disease, he proposes as follows—to which we invite the attention of the profession :

1st. That physicians of Georgia, Alabama, Mississippi, Florida, Louisiana, and Texas, report their names to the New Orleans Medical and Surgical Journal and the Southern Medical and Surgical Journal of Augusta, as either for or against typhoid fever, as a separate and independent disease.

2d. That as many as can find it consistent with their labors, write out their views as to its independence or identity with other diseases, and the treatment found most successful.

I believe that every member of the profession is honest in his opinion ; but, if possible, we should know the truth of the matter. If there is any hope of settling these vexed questions, let it be done before they are pushed upon another age. We are probably as well prepared to discuss the identity or non-identity of typhoid fever now as we will ever be. Many consider it a modification of remittent fever—some of intermittent—some as identical with typhus. It would be proper for these to state what they consider remittent, intermittent and typhus fever, and further, to relate clearly the nature of that modification which gives rise to those peculiar symptoms known to many as typhoid fever.

I wish to see an interest manifested in the profession in diagnosis, not only in typhoid, but in every other type of fever. If typhoid be remittent or intermittent fever, its treatment is clear ; if not, its nature should be ascertained, that it may be properly treated. I should be pleased to see a table of physicians' names, as to identity or non-identity of this fever, and in that table I shall risk my name as to its non-identity, and in favor of the doctrine that it is a disease sui generis.

I am fully aware of the incoherency of this article, written at many sittings, caused by professional duty. This, however, could not be avoided, and should it not meet with approbation, I have the consolation to know—

" Nec semper feriet quodcunque minabitur areus."

XVI.—*Binocular Microscope.*

From the Transactions of the Phys. Med. Society of New Orleans.

At a meeting of the Physico-Medical Society, on Saturday evening 2d October, Prof. J. L. Riddell called the attention of the Society to an instrument of his own invention and manufacture, which promises to be of incalculable advantage in microscopic researches, especially in the prosecution of microsopic anatomy and physiology.

He remarked, that he last year contrived, and had lately constructed and used, a combination of glass prisms, to render both eyes serviceable in microscopic observation. The plan is essentially as follows :

Behind the objective, and as near thereto as practicable, the light is equally divided, and bent at right angles and made to travel in opposite directions, by means of two rectangular prisms, which are in contact by their edges, that are somewhat ground away. The reflected rays are received at a proper distance for binocular vision upon two other rectangular prisms, and again bent at right

angles, being thus either completely inverted, for an inverted microscope, or restored to their original direction. These outer prisms may be cemented to the inner, by means of Canada balsam; or left free to admit of adjustment to suit different observers. Prisms of other form, with due arrangement, may be substituted.

This method proves, according to Prof. Riddell's testimony, equally applicable to every grade of good lenses, from Spencer's best sixteenth to a common three inch magnifier, with or without oculars or erecting eye-pieces, and with great enhancement of penetrating and defining power. It gives the observer perfectly correct views in length, breadth, and depth, whatever power he may employ; objects are seen holding their true relative positions, and wearing their real shapes. In looking at solid bodies, however, depressions sometimes appear as elevations, and vice versa, forming a curious illusion; for instance, a metal spherule may appear like a glass ball silvered on the under side, and the margin of a wafer may seem to ascend from the wafer into the air.

With this instrument the microscopic dissecting knife can be exactly guided. The watchmaker and artist can work under the binocular eyeglass with certainty and satisfaction. In looking at microscopic animal tissues, the single eye may perhaps behold a confused amorphous, or nebulous mass, which the pair of eyes instantly shape into delicate superimposed membranes, with intervening spaces, the thickness of which can be correctly estimated. Blood corpuscles, usually seen as flat disks, loom out as oblate spheroids. Professor R. asserted, in short, that the whole microscopic world could thus be exhibited in a new light, acquiring a ten-fold greater interest, displaying in every phase a perfection of beauty and symmetry indescribable.

Sulphat. Bebeerine.

Prof. Nott stated that he wished to call the attention of the Society to a remedy, which, although introduced as early as 1843, (mentioned by Dr. Rodie, in 1835) had never come into general use: Bebeerine, or rather the sulphate of that alkaloid. He had been using it pretty extensively for the last two months, principally in hospital practice, and was well pleased with its effects in intermittent and remittent fevers, and in some of the neuralgiæ. He believed it to be a better tonic, to possess more astringency, and, as far as he had experimented in those diseases, to produce equally as prompt antiperiodic effects as the sulphate of quinia. He believed it to be better adapted to those persistent cases of intermittent so common in our Southern latitudes. For its tonic and antiperiodic effects, he had used it in the dose of four grains every three or four hours, dissolved in water; in the so called abortive treatment, in the dose of one scruple; in well marked quotidian or tertian, he had not failed in a single instance to prevent the chill by administering 20 grains immediately before the expected paroxysm.

Arsenic, though a valuable, was a dangerous remedy at all times, even in the hands of the most careful, and when long continued, not unfrequently produced permanent injurious effects.

He intended to continue his experiments, and give more fully the result of his observations. He only desired to mention the subject at present, that other members of the Society might be induced to assist him in the investigation.

The best varieties of the Cinchona tree, it was feared, might at no distant day become, if not distinct, at least very scarce, as no means of propagating

them has as yet been successful, and it behooves us to look for some substitute for this invaluable drug.

The Greenheart (Nectandria Rhodeicei) was a large forest tree (Bebeeru, of the natives) indigenous to the British Guiana, and extensively used in ship building. Both the bark and the fruit are rich in Bebeerine, and these, unless a market could be induced, would be discarded as worthless. Should it be found to answer the purposes claimed for it, the alkaloid might be obtained at a trifling cost.

The tree contains a second alkaloid, Sipeerine, which, as far as he knew, had not been experimented with.

He had in some instances known it (Bebeerine) to produce irritability of the stomach, (on which account it had been objected to by some) but he had known sulphate of quinine to produce it quite as often.

(*N. O. Monthly Med. Reg.*)

XVII.—*Professional Letters from Paris—Velpeau—Chomel—Hotel Dieu—Nelaton—Civiale—Roux.*

Our distinguished countryman, Prof. P. F. Eve, has been spending the present season in Europe, in close communication with the medical savans of Paris and other large cities of the old world. During his absence, he addressed the following letters to the Editor of the Nashville Medical Journal, which will be read with pleasure and instruction by his friends.

(*Ed. N. O. Med. Jour.*)

Paris, May 25, 1852.

Dear Doctor—I arrived here safe on the 21st, and soon met our friends, Prof. Lindsley and Drs. Duval, Breckenridge and some others, who, like myself, have been attracted to this head quarters of medical science. I find our colleague labors in the laboratory nine hours a day.

I have only as yet visited La Charité and shaken hands with the great Velpeau. He has but little of much interest in his wards. I saw him divide the tendon of the tibialis anticus muscle and operate for cataract. He has one curious case, to which he specially directed my attention. This is a salivary fistula, situated about three quarters of an inch behind the angle of the inferior maxiliary bone, in a young man of 19 years. He says he had an abscess in the parotid region, which was open seven years ago, and this fistula is the result. The peculiarity of this case is in its position, so distant from the canal of Steno.

In his lecture of this morning, he dwelt upon the therapeutic effects of tinct. Iodine in mammary abscesses. Used of full strength, he has known excellent results in abscesses even with free suppuration, provided there is no internal organ affected.

We read this morning in the Presse,—one of the few newspapers which are now permitted to appear in Paris,—that one of the most learned and celebrated professors of the Faculty of Paris, M. Chomel, has resigned, refusing to take the oath to the new government. The chair of internal clinic is thus left vacated in the school of Medicine.

It is said that the Prince President is about to abolish the system of "con-

cours," by which the Professorships have hitherto with so much satisfaction been filled.

The old Hospitel, Hotel Dieu, we are informed, is about to be broken up or removed. I think you will agree with me that this ought to be done, when we find in one of the guide books of Paris, the assertion made, (I cannot say fact, for I hope for humanity and our profession it is not true) that of the first 500 patients received into it during the cholera of 1832, only one survived, and only five of the first thousand. The location of this Hospital is certainly very bad.

MAY 26th.

Heard M. Nelaton lecture this morning, at the Hospital of the School of Medicine. My expectations were fully realized. He is an excellent clinical lecturer. In the course of the morning he used the blackboard three times to illustrate his positions and remarks. He first exhibited the pathological specimen of an old man who had died with an artificial anus. While preparing for an operation, he was attacked with pneumonia and immediately suffered from bed sores about the sacrum and hips. M. Nelaton remarked that M. Malgaigne had first observed, that while patients, paralytic, for instance, may be upon the back for months without excoriations, yet the moment an acute inflammation attacks them, bed sores are the result. So in his case; the patient, although aged, was doing well until the lungs became invaded. Another remark he made was, that in all the post mortem examinations he had made of patients who had labored under artificial anus, he had invariably found the upper portion of the intestine involved in the affection inside, and the lower portion outside, as regards the mesial line of the body. His explanation is, that the upper portion of the bowels becomes distended and falls naturally towards the pelvis, while the lower portion being empty, is consequently pushed outwards or to the iliac fossa of one or the other side.

He next alluded to a case just received into the Hospital, seriously injured by a fall. In relation to the question of diagnosis of infiltration of blood under the scalp and fracture of the cranium, he said one could be easily distinguished from the other, by these symptoms:

1st. In a bloody tumor simulating a fracture, let the surgeon press steadily upon it, and the fluid being displaced, he will feel the arm resisting the bone.

2. Should an artery, divided in the injury, give rise to the pulsation, according to its situation, compress the temporal or occipital vessels, and it will cease in the bloody infiltration.

3d. The pulsation of the brain differs from that of an artery; in one case it is an artery, in the other it is a mass moved by several vessels.

4th and lastly. If the brain be injured, and œdema of the eyelids ensue, the infiltration will take place slowly, and first exhibit itself under the conjunctiva. If the contusion be superficial, the eyelids will become puffed up at once; but if deep-seated, then it will appear gradual and be first subconjunctival. This difference in the same condition of these organs is owing to the resistance of the membrane connecting the cartilages of the eyelids to the surrounding soft parts.

SATURDAY, 29th.

Went to the Hospital Neckar to see the celebrated Dr. Civiale. He is quite an indifferent lecturer, but an inimitable operator with the catheter or lithotrity instruments. He stated in his *leçon* to-day, that the statistics of 11,000 cases of lithotomy exhibited one death for every 9 infants, 2 deaths for every 9 adults, and 3 deaths for every 9 aged persons. He says he prefers cutting to dilatation, to cure stricture of the urethra. He operated on a case by crushing a fragment of a stone he had broken at a previous sitting, with the in-

strument now generally if not universally employed, having a beak like a duck, with two branches, one sliding in the other. He is inclined to the opinion, but not definite, that chloroform prevents reaction.

M. Nelaton's Clinic.—He presented two cases upon which he had operated. The first was an extensive necrosis of the femur, upon its anterior surface, near the knee-joint. An incision through the soft parts was made and a variety of strong cutting forceps were employed to remove a considerable number of pieces of bone. The patient was a youth, and placed under chloroform during the operation. It was a tedious and somewhat embarrassing one.

The other one was the removal of the little finger with its metacarpal bone, for caries at the wrist-joint. The operation consisted of an incision from the head of the fifth metacarpal bone to its distal extremity, or metacarpo-phalangeal articulation, around which a palmar and dorsal cut was made, so as to pass the knife between the fourth and fifth bones of the hand, when the latter was disarticulated from the os unciforme. The cutting forceps were also used in the wrist-joint. Chloroform was again used, but did not act as favorably in this as in the previous case.

In alluding to the dangers of the operation, M. N. declared that it could not be performed without opening the carpal articulation.

Mr. Costello, the editor of the Surgical Encyclopedia of London was present at this clinic. He is frequently at this Hospital.

June 1st.

At La Charité. M. Velpeau entered to-day upon the interminable question of cancer, preparatory to removing a diseased mamma. The French still hold to the terms of soft and hard cancers. M. V., like all prudent surgeons, is averse to operate upon every scirrhus, and especially upon ulcerations of a decided carcinomatous character. But like others, he does operate in certain cases. The one of to-day he thought wanting in several particulars to make up genuine scirrhus. I was greatly surprised to see him present the pathological specimen of tiba, which he termed encepheloid cancer, taken from a lady of Paris, who had received a fall some three or four weeks before. What would Mr. Stanly of London say to this carcinoma of a bone ?

He removed the entire breast with a chain of glands, small, and not extending very high into the axilla, in two and a half minutes. You know he is not an expert or very dexterous operator ; using, as he is compelled to do, the middle and not the fore-finger of the right hand, because of an injury to it in youth. Chloroform was used in this case ; acted well.

June 2d.

At the Hotel Dieu. And what a change has come over it since I was a student there in 1830 and '31 ! I went round the wards with M. Joubert de Lamballe, one of the best surgeons and best lecturers in Paris. I saw several interesting cases in his wards, and there is little doubt he is doing as much for French surgery as any one else. In one case of retention of urine for stricture, the bladder was punctured above the pubis, the stricture cured, a large fistula anterior to the testicles covered by a flap slided from the scrotum, and the patient is now nearly well. A case of stone upon which he operated six days previously was also doing well. The operation was the lateral, and performed with a bistoury.

A fractured leg he was treating with a folded sheet, placed transversely over it, so as to compress the limb upon the bed (hard matrass and folded cloths over it) while extension was maintained from the perineum of the fractured side and the ankle by handkerchiefs to the head and foot of the bedstead. A rhinoplastic operation was not very promising.

After the visit to the wards, I went into the amphitheatre, where I had so

often heard Dupuytren lecture to some hundred students. I found the old veteran M. Roux in his place, and counted sixteen students and 9 interns around his table—this was his class, all told, and yet he had several operations to perform. M. Roux lectures, if any thing, worse than ever, being now very old; but still he operates with wonderful skill. At his present age, say near 80, I saw him go through every stage of his favorite method for cataract. Having many years ago operated upon 600 cases by the different processes proposed to relieve cataract, he ascertained that extraction had been the most successful. Without the aid of glasses he performed this operation as well as any one. In extirpating the eye, chloroform was administered by an inhaler while the patient was in a sitting position. The impression was not good, and the operation badly performed. More than 8 minutes were consumed in its removal and the patient suffered greatly.

JUNE 4th.

La Charité. M. Velpeau. His lecture to-day would have pleased you greatly. In relating the symptoms of a diseased os tinsæ, he came out against the modern use (abuse) of the speculum. He declared this instrument was never useful in displacements of the womb, or in diagnosing tumors projecting into the vagina. It was necessary, he admitted, in the topical application of medicaments to the os tincæ. Few instruments had been more abused, and it was high time honest physicians should do all they could to arrest the furor among women for this indecent, unnecessary and injurious examination. I could not but recollect your satisfactory argument on this subject last winter, when scolded at a consultation of old grannies for not using the speculum—viz: that as the patient in question did not now bear children, she therefore had no womb, and the instrument was not required.

He removed the little finger of the right hand at the metacarpo-phalangeal articulation, for deformity. The patient had had the hand crushed some years ago, and this finger now projected upon its palmar surface. Velpeau remarked that there were two kinds of operation *per complaisance*—1st, simply to gratify the patient as to appearances; the 2d, because the deformity presents or interferes with his business or daily work. The surgeon, of course, is more excusable in operating under the latter circumstances than for the simple gratification, without any useful object in view.

JUNE 5th.

At Hospital Neckar. M. Civiale's service. Witnessed lithotomy by the lateral operation--instrument, the single lithotome caché; patient, boy of seventeen years; time, three minutes and a half; stone, apparently mulberry, size of a pullet's egg. There was rather too much parade before the operation in preparation for it, but it was well done. Civiale did not operate, but asked his right hand man, M. Le Noir, to perform it. Chloroform acted well in the case.

JUNE 7th.

Clinic of the School of Medicine. M. Nelaton. He gave to-day a most excellent lecture on internal intestinal obstructions. The case provoking the remarks was this. A man aged 52 was sent to the hospital by a friend of M. N., who for five days had no fæcal evacuation, great meteorism of the whole abdomen, stercoraceous vomiting, but no fever; pulse 85. Croton oil was given in large doses, and the whole abdomen covered with ice. These means produced immense fæcal evacuations, with immediate relief to the patient. This morning he is very weak, pulse at 120, no appetite, and it is apprehended he will die.

The surgeon took occasion to enlarge on the subject of intestinal obstructions arising from internal causes. These he mentioned were three. 1st. Those arising from substances foreign to the bowels; they may come from without, or originate within; instances, cherry stones, etc., and biliary calculi,

etc. 2d. Intestinal ulcerations, particularly in tuberculous subjects. 3d. Strictures, especially produced by the appendix vermiformis. Of this latter variety two specimens were exhibited. He of course spoke of these affections independent of hernia.

He lastly alluded to the operation for the relief of these internal strictures. He said surgeons were averse to operate, because they could not tell where the mechanical obstructions existed, nor could it be always relieved by opening the abdomen. He says Dupuytren, in 1718, proposed to establish, under these circumstances, an artificial anus, by opening the intestines above the stricture. M. Lauguier performed this operation in 1838; result unknown; but next year M. Maisonneuve succeeded perfectly.

M. Nelaton has now operated several times, with and without success, and he now thinks that this ought to be considered an established surgical operation.

In the diagnosis of internal intestinal obstructions, the surgeon must be influenced by its sudden production.

Very respectfully, yours,

PAUL F. EVE.

XVIII.—*A new mode of reducing Dislocations of the Hip Joint without pulleys or other mechanical means.*

BY W. W. REID, M. D., ROCHESTER, N. Y.

We extract the subjoined observations, on the subject of dislocations, from a paper by Dr. Reid, contained in the late transactions of the New York Medical Society. Several cases of dislocations of the hip-joint are here reported, in the reduction of which the method recommended below was adopted with complete success. We can only make room for the following short extract—the concluding portion of Dr. R.'s paper.

(*Ed. N. O. Med. and Surg. Jour.*)

On the 18th of December, 1849, Dr. Moore having a subject in process of dissection by his students, proposed to me, that we dissect up the muscles of the hip joints, leaving them *in situ;* dislocate the bones and then operate on them by traction in the usual way, and also by flexion, after my method, in order that we might observe the condition and action of the muscles, before and during both modes of operation.

We found it impossible to force the head of the bone through the capsular ligament, till we had made a slight incision into it. The head then shot through it, tearing it sufficiently to permit its passage, but the ligament seemed to fit close around the neck of the bone. As the head passed out, backward and upward, it caught the tendon of the pyriformis, tearing it off as it passed underneath and above it, which, if it had remained entire, would have brought its tendon like a cord across the neck, below and close to the head, lashing it closely down to the dorsum of the ilium. We were at the time inclined to attribute its rupture rather to the decayed state of the subject than to excessive distension by the dislocation. But precisely the same thing occurred in dislocating the other hip, although we endeavored to avoid it by pushing the bone in a different direction, but as the insertion of this muscle is at the root of the trochanter, it is evident it must obey its movements, and therefore preserve nearly

the same relation to it and the head of the bone; whatever direction it takes in being dislocated backwards, that is, whether a little more obliquely downward or upward.

When dislocated, the head of the femur rested on the gluteus minimus muscle! The gluteus medius and maximus, psoas magnus, iliacus internus, adductor triceps and pectineus, were shortened and relaxed. Posteriorly, the obturator internus, gemelli and quadratus were greatly strained, and it was apparent that the pyriformis, if it had not been torn off, would have been even more stretched than they. Anteriorly, the obturator externus was stretched, seemingly, to its utmost, powerfully adducting the bone, and thus preventing abduction and rotation.

After carefully noting the relative position of the bone and muscles, we made traction on the femur downward and inward over the sound limb, as we are directed by most authors; but the moment the attempt was made the muscles already named as being in a state of tension, became more tense, and bound the head of the bone more firmly down on the dorsum, although all the muscles about the joint were separated from each other, were loose, without vitality, and almost in a state of decomposition; yet it was with great difficulty that we could bring down the head into its socket; and when we did so, we carried away a part of the capsular ligament; and if the pyriformis had not been torn off already, it seemed impossible that it should escape rupture now. But when we adducted, flexed and carried the limb over the pelvis, as has been described, the reduction was effected with the greatest ease. We repeated and varied our experiments on both joints, as often as the subject would admit, and always with the same results. I was here enabled to correct one error which I had committed in operating. If we carried the knee above the umbilicus and pressed the thigh close to the body, on a line with the side, the pointing towards the axilla, as I had always done, we brought the great tendon of the gluteus maximus into strong tension, which would compress the trochanter so hard, that it prevented the head from mounting over the edge of the acetabulum. The reduction was effected much easier by carrying the knee as high as the umbilicus, then abducting and rotating the thigh.

From the foregoing facts and observations, I think we may justly deduce the following propositions:

1st. The chief impediment in the reduction of recent dislocations, is the indirect action of muscles that are put upon the stretch by the mal-position of the dislocated bone, and not by the contraction of the muscles that are shortened.

2d. That muscles are capable of so little extension beyond their normal length, without hazard of rupture, that no attempt should be made to stretch them any farther, in order to reduce a dislocation, if that can possibly be avoided.

3d. The general rule for reducing dislocations should be, that the limb or bone should be removed, flexed or drawn in that direction which will relax the distended muscles, and not by extension and counter-extension, for the simple purpose of overcoming the supposed contraction of muscles.

4th. Dislocation of the femur on the dorsum ilii, an accident heretofore esteemed so serious to the patient, and so formidable to all surgeons, is reduced with the greatest ease in a few seconds or minutes, without much pain, without an assistant, without pulleys, without Jarvis's adjuster, or any other mechanical means, simply by flexing the leg on the thigh, carrying the thigh over the sound one upward over the pelvis, as high as the umbilicus, and then by abducting and rotating it.

The New-Orleans Medical and Surgical Journal.

Vol. IX.] NEW-ORLEANS, NOVEMBER 1, 1852. [No. 3.

HEALTH, MORTALITY, &c.

We are now beginning to experience, in the better health of our city, the excellent effects growing out of the improvements which have been carried on in our city for the last three or four years. The good which has already resulted from a better system of drainage, of paving, and a more strict attention to the cleansing of the streets, sewers, etc., should encourage our citizens and those in authority, to increase their exertions and extend their operations, until all the swamp land in the immediate vicinity of the city shall be thoroughly drained and reclaimed.

But a few years have elapsed since this city was almost annually visited by epidemic yellow fever—a terror at once to the stranger within our gates, and a serious check to our prosperity and commercial greatness. Five years have elapsed since this city was visited with any thing like epidemic yellow fever; and we confidently believe that this disease may be ultimately banished from our midst by felling the forests of cypress and draining the lands which are interposed between the city and the shores of Lake Pontchartrain. Whilst alluding to the salutary influence upon public health to be derived from reclaiming the swamp lands in our immediate proximity, we beg to call the reader's attention to the annual message of the Mayor of the city, sent in to the Councils, touching this subject. With his usual sagacity and public spirit, Mayor Crossman has, since he has been elected Chief Magistrate of our city, urged upon the city fathers the importance and utility of extending our streets —clearing up and draining the swamps in our rear, as measures well calculated to improve the sanitary condition of the city. In his message of the 12th April, 1852, to the *President and Members of the Board of Aldermen*, he uses the following just and emphatic language. After congratulating the citizens on the improvement of the public health for the past year, he proceeds: "Whilst this gratifying result (improved health of the city) is in part attributable to the absence of that desolating scourge which visited our city in 1849, (1847, *Ed.*) I cannot resist the conclusion that much of it has been attained by the judicious opening of streets in the rear of the city, thus giving freer access to the purifying breezes from the lake. The last few years have witnessed the reclaiming of hundreds of squares of ground from what was formerly impenetrable swamp; and every foot of land thus wrested from the wilderness tends to destroy those miasmatic influences, which in past times operated so injuriously on the health of the city. Five years have now elapsed since the yellow fever prevailed as an epidemic, and the time is not remote, if it be not already at hand, when the existence of that disease will be known only in the recollection of the older inhabitants. The prevalence of that fell destroyer has been incon-

testibly one of the greatest drawbacks to the prosperity of New Orleans; and the impression once removed that its visits need no longer be feared, we may confidently look forward to a rapid increase in our permanent population, and to a corresponding augmentation in our wealth, character and standing as a community."

Such is the language of one who has resided in this city over a quarter of a century, and witnessed the ravages of those terrible epidemics which in years past, destroyed a large portion of our population—crippled our commerce—checked the growth of our city and paralyzed every species of trade and manufacture. To our estimable Mayor, therefore, much praise is due, for his unceasing efforts to drain the swamp lands in the vicinity of the city; and we hope, since he seems fully persuaded of the deleterious influence of these hotbeds for the generation of disease, that he will continue to direct his efforts to the accomplishment of this important object. It is superfluous to repeat that we fully concur in the opinion, as expressed, in the message of the Mayor to our city authorities. The entire city should be deeply interested in this question, and we hazard nothing in saying that when all the swamp lands lying between the city and the lake shores shall have been cleared, ditched and drained, yellow fever, with its *cohors febrium*, will be numbered among the diseases that have passed and gone; and the student of medicine will seek only in the record of the past, to learn its history—its symptoms and its treatment. If, then, so much good to the interest of the city, and health to its population, has been derived from the partial clearing of these swamps, these will be increased four-fold when the work is fully and thoroughly accomplished. Then let our Mayor and Aldermen carry on the work—and thus rid the city of epidemics, and those who are to succeed us will bless our memories and hallow our services in all time to come. Observation and experience have demonstrated that the plague of our city—yellow fever—may be driven from New Orleans, —that it is a disease originating from causes accidental and not original—causes, too, which the expenditure of a little money and time can easily remove, and place us at once beyond the reach of these desolating visitations.

Of the health of the city since our previous publication, the following table will furnish a brief exposition:

DEATHS IN THE CITY OF NEW ORLEANS,

For the 9 weeks ending Oct. 16th, 1852.

1852	*Cholera.*	*Fevers.*	*Y. Fev.*	*Total.*
Aug. 21st,	13	27	6	135
" 28th,	18	33	2	158
Sept. 4th,	14	38	11	148
" 11th,	30	48	15	175
" 18th,	35	35	19	194
" 25th,	28	55	23	209
Oct. 2d,	9	46	23	154
" 9th,	12	61	35	175
" 16th,	11	66	50	180
Total,	170	409	184	1528

Of the foregoing 399 were under 10 years of age, and 166 were colored.

The reader will observe that the Cholera has greatly fallen off from the figures reported in our last number for the same time; and as the deaths from this zymotic form of disease declined, those from fevers rose in the same ratio. This shows, what is generally admitted by Physicians, that two violent diseases, whether endemic or epidemic, cannot prevail among the same population with equal malignity at the same time; the one must supercede or absorb the other. In this case, cholera gave way to fevers, and these latter constitute the prevalent type of our diseases.

In our September number two deaths by yellow fever were reported; but we stated that although some doubts were entertained as regarded the genuineness of these two cases, yet, as we had every confidence in the skill and experience of the Physicians under whose hands the certificates of death were given, we believed both cases were genuine. Some increase of cases since that time goes to confirm the correctness of our opinion, and ratify the diagnosis of the two Physiciaus in question; for since that date (Aug. 7th) the deaths from yellow fever (see above table) have been 184—making nearly one fourth of the sum total of the deaths from all the febrile diseases. Notwithstanding the existence of a few cases of yellow fever in the city, among that class of persons so liable, from bad habits and irregular living, to our endemic diseases, still the season is much too far advanced to create any fears in the public mind on this subject. Cool weather, with its frost and other purifying agencies, will soon dissipate the morbid principle or principles from which the disease derives its power and activity.

Our observations at the Hospital and inquiry among the city Physicians, have convinced us that typhoid fever has prevailed to a very limited extent, both in private and hospital practice, during the last five or six months. This may be attributed to the non-arrival of many immigrant vessels during the time mentioned; but as the winter approaches, we may expect hundreds and even thousands to pour in upon us from the shores of Europe, worn down with disease and starvation, and freighted with pestilence, and saturated with the poison of typhus and typhoid fevers, small pox and other kindred diseases. In anticipation of such a dreaded importation, it becomes our city authorities to take, in time, such steps as will secure this community against the introduction and diffusion of these terrible plagues. A little timely precaution on the part of those on whom it appropriately devolves, will serve to protect our citizens from a disease, which every immigrant vessel from Europe is but too well calculated to augment.

YELLOW FEVER.

In our report of the city mortality for the week ending August 21st of this year, six deaths from yellow fever were returned from the cemeteries; and these constitute the first cases of which we have any knowledge this season. The week following, ending August 28th, only two deaths are reported; but for the third week, closing September 4th, eleven deaths are reported—(see remarks under Health of City), after this, the mortality, as will be seen by reference to our weekly tables, from yellow fever, steadily yet slowly increased, up to the middle of October, at which date our observations terminate. The disease thus far has been restricted almost exclusively to the Charity Hospital, and has prevailed among that class of persons who are new comers—strangers to our climate and diseases, and who fly to the Hospital when disease overtakes them. As a general rule, they are dissipated, improvident and much exposed to those influences which are acknowledged to excite the disease; and when such are assailed by the fever, they neglect to call in medical aid, or to apply to the Hospital, in the early stages of the disease, when *alone* treatment can be of any avail. Hence, they seldom fall under the notice of the Physician until the third, fourth, fifth, and not unfrequently as late as the sixth day of the disease. At this stage of the case, the Practitioner can do little more than palliate symptoms and assist in conducting the patient through the "valley and shadow of death." We have seen these cases eject the black vomit before they could be undressed and placed in bed; and numbers are admitted in the evening and die before the Physician calls the following morning to make his usual visits. These facts will assist in explaining the large mortality from this fever in our Charity Hospital; and hence we must not reckon the attacks of the disease from the deaths that occur; since at least three-fourths that are admitted with the disease perish—from the causes already mentioned. The disease has prevailed to a considerable extent this fall among the shipping, particularly those anchored at the Levee in front of the Third District—formerly the Third Municipality. Many of the sailors, captains and other officers of these vessels have been seized with the yellow fever; but justly appreciating the value of life, they obtained, early in the attack, the requisite medical aid, and in consequence, few died of the disease. Local causes had undoubtedly something to do with the fever among the shipping; along the Levee, for some distance, both vegetable and animal matter, running into decomposition, is thrown in great quantities, and these remain exposed to a hot sun for days, emitting the while disagreeable and unwholesome odors—the river being now too low to carry off these offensive deposits. All this evil might be remedied, and the health of the vessels secured, by causing all this putrid vegetable and animal matter to be deposited in barges, constructed for the purpose, and then carried out into the stream and emptied. We are surprised that this matter, so important to our commercial interest, has not heretofore attracted the attention of our city authorities. Is it not the duty of the Street

Commissioner to investigate this subject, and abate the evil with as little delay as possible?

We shall conclude these few observations by noticing some of the peculiar characteristics of the yellow fever, as it has presented itself this season. In the first place, the attack seems milder—the reaction less intense and of shorter duration—the pains, if violent at the outset, yield more readily to treatment—the head-symptoms rarely resist a hot mustard foot bath or two, and one or two full doses of quinine and opium. In the early stages the face is less flushed—the features less altered, and the intellect less disturbed, than has been usually observed in the same disease in former seasons. Whilst the disease has appeared more mild during the stage of reaction, it must be observed that in the latter period black vomit, hemorrhages, etc., almost invariably mark the closing scene of the disease. In all our experience in this fever, (and in this others fully agree with us) we have never witnessed so much black vomit and hemorrhage for the number attacked. Few, indeed, die of the disease in the Hospital, who do not expire ejecting black vomit, or in whose stomachs, after death, this fluid may not be found in large or small quantities. Hemorrhages from the nose, gums, tongue, etc., are observed in almost every case, in some stage of the disease. In the latter period of the disease, delirium is quite common, and betokens an unfavorable issue; petechiœ are also frequent.

In some cases obstinate vomiting seizes the patient, and persists, in spite of every effort, until fatal black vomit is thrown up, when usually all hope of saving the case is abandoned. The treatment in the early stage is limited to cupping in some cases—hot mustard foot-baths—cold lotions to the head, and sedative doses of quinine and full doses of opium in some instances. Of the quinine, the dose is usually for an adult from 15 to 30 grains, combined with from 2 to 4 grains of opium, and repeated in three to six hours. A mild purgative may be premised in some cases; the bowels may, however, be left with safety to take care of themselves; our aim is first to abolish the fever, reduce the pulse, soften the skin, and thus break up the catenation of morbid influences by which the disease is propagated from one organ to another. Having accomplished this, we may then look after the bowels, kidneys, etc., etc.

For the microscopical appearances of the black vomit this season, we invite attention to the following note, addressed to us by Prof. Riddell, touching this interesting point in Pathology. Dr. Riddell's skill and address in the use of the microscope, and the accuracy and elegance with which he describes what he sees, are now well known and fully appreciated by the readers of the Journal. Here is his letter—

University of Louisiana,
New Orleans, October 18th, 1852.

A. Hester, M. D.

Dear Sir—In compliance with the request, contained in your note of this day, to send you a brief transcript of the results of microscopic observation upon *black vomit*, I present you what follows.

I have had opportunity to examine rather more than a dozen different samples of genuine black vomit, mostly from yellow fever patients of the Charity Hospital; for which samples I am indebted to the kindness of Dr. E. D. Fenner, Dr. J. C. Cummings, Dr. Josiah Hale, Prof. Thomas Hunt, Dr. P. B. McKelvey, Dr. Anfoux, Dr. Nutt, Dr. Macgibbon, and others.

The dark color is due, beyond question to blood, which, in all the cases examined by me, bore the appearance of having been materially modified by acid, Most of the blood corpuscles seemed to have been disintegrated; broken down into small granules, and irregular masses. [Some of them resembled figures 9, 10, Tab. I. Selected Items Microscopic Observation in the New Orleans Med-and Surg. Jour. Jan. 1852.] Clots generally abounded, containing whole corpuscles, generally spherical, and smaller than the normal size; from .00020 inch in diameter, as measured in a sample furnished September 12th, by Dr. Cummings, to .00030; the usual measurement being .00025. Dr. Fenner brought, September 12th, a post-mortem sample, from the stomach, in which most of the corpuscles presented nearly their usual appearance, measuring from .00025 to .00033. I have repeatedly modified healthy blood, by the addition of hydrochloric acid and nitric acid, chloride of platinum, or weak tincture of iodine, so that the corpuscles resembled closely those usually found in black vomit. [Vide Tab. XIV. fig. 142. op. cit.] and finding the black vomit, in several trials, uniformly acid, it appeared to me that the modification was due to acidity.

Prof. Hunt, who gave much attention to black vomit some years since, has favored me with a memorandum of his chemical examinations at that time. He found the density of the clear liquor after filtration, near 1.023. The composition varied, of course, with different samples; but one component feature was always present, "much free muriatic acid," which Prof. H., correctly, in my opinion, inferred, was a main concurring cause, in the production of black vomit.

After the microscopic clots of disintegrated and modified blood, the next most prominent feature in black vomit is the abundant occurrence of groups of large, connected, beautifully developed cells; modified epithelial cells of the stomach, abnormally developed. These vary in diameter from .00050 inch to .00200. In shape they are spheroid, ovoid, oblongovoid, or polyhedral; usually nucleated; nuclei .00012 to .00040 in diameter. These cells are filled with granules measuring .00002 to .00004 inch. Dr. Fenner brought me for examination, pieces of stomach, which, before the death of their owners, had cast forth black vomit. I found myriads of these cells developed upon the inner coat, and traversed by most delicate capillary blood-vessels; which, by a little aid from the imagination, appeared to be newly formed.

May not this great development of delicate cells, upon the mucous coat of the stomach, be a most important link in the chain of causation, which ends in black vomit? In this wise:

It may be set down as almost certain, that in the development of an embryo

tadpole, [vide Tab. XVI. and its explanation, Sept. No.] the free cells, or blood corpuscles, move intercellularly, forming in time, by plastic deposite, the capillary and other tubes, in which they are usually seen. Now here we have a rapid new cell formation. Blood would push forward into it, as in embryonic development, forming capillary vessels. But the whole new structure, of cells and capillary vessels, is of such extreme tenuity, and so devoid of the strength which time only could communicate, as to give way, especially under the disorganizing influences present in the stomach; so as to permit blood, the coloring ingredient of black vomit, to transude into that organ.

Dr. Fenner brought me some dark urine, and a piece of the bladder, of a patient who had died with black vomit. A closely similar cell development had occurred upon the mucous coat of the bladder, and the dark color of the urine was caused by the presence of blood.

In every sample of black vomit examined, with one or two exceptions, a small variety of concatenated *Torula* was observed; and generally in great abundance. [Vide Tab. X. fig. 102, 103, 104, exactly resembling it in size and form.] The individual beads were oval, averaging .00018 in length by .00012 inch in breadth.

Minute, filiform, moving Algæ were uniformly present, varying from .00001 to .00003 in thickness. [Vide Tab. XIX. fig. 192, 193, 203.] Several jointed forms of moving Algæ were equally constant, though mostly still more minute. [Tab. X. fig. 99, 100, 101. Tab. XIX. fig 189. Tab. I. fig. 22.] Vital organizations still more minute, were constantly met with. [Tab. I. fig. 2, 2, 3.] It is not probable, however, that these algoid bodies have any special agency in producing or maintaining yellow fever.

On the 19th of October, I observed in a sample of black vomit, furnished by Prof. Hunt, an unusually minute form, of that rather rare parasitic organism, the *Sarcina*. The cells or segments were arranged mostly in squares; and each separate segment, having an oval form, measured near .00003 inch. [Vide Tab. XX. fig. 206, which is more than twice as large.]

By way of comparison and confirmation, Dr. Fenner and myself examined some black vomit, which he had kept corked up in a bottle for ten years. Disintegration had proceeded further than in any recent specimen observed. The minute amorphous fragments, still retaining the dark color, were hunted over a long time, and only two or three nearly entire corpuscles, which wore the organic form of blood, were found. Minute crystals, furnished by no recent sample, were seen.

Yours, truly, J. L. RIDDELL.

SUGGESTIONS CONCERNING THE FUNCTION IN THE LIVING ANIMAL SYSTEM, PERFORMED BY THE VIBRATORY MOVEMENTS OF BLOOD CORPUSCLES.

BY J. C. CUMMINGS, M. D.

One of the Visiting Physicians to the Charity Hospital.

On examining a piece of lung (under Dr. Riddell's Spencer lens of high power) of a man who had died of Emphyzema sixteen hours previously, I was astonished to see the blood corpuscles in motion. Expressing my surprise to Dr. Riddell, he said the corpuscles were very tenacious of life, and referred me to Dr. Hort's papers for observations made by himself and Dr. Hort several years ago. Knowing that nothing was superfluous in nature, I asked the Doctor what this vibratory motion of the blood corpuscles was subservient to. He suggested, "to prevent the corpuscles from becoming water-logged—thus lessening the danger of stasis and obstruction in the capillary vessels." Thus we see in inflammation of the vessels where their coats become roughened by disease, how happily nature has provided against a stagnation and coagulation of the circulating fluid, and all the sad consequences of such a stoppage of blood in an inflamed artery or vein. I then asked the Doctor if he did not think that this vibratory motion assisted capillary circulation. He said he thought it did, somewhat as lubricating oil assists the movement of machinery; and that a solution of muriate of soda excited this vibratory motion into increased action;—and then suggested, that by evaporation, etc., the salt should be concentrated near the surface, the very place where this vibratory motion should be the greatest, viz: in the capillary system.

From Dr. Hort's papers I have made the following notes: New Orleans Med. and Surg. Jour. Dr. W. P. Hort on the Blood, etc. Page 588, Vol. I. of 1850, says: "The motion of the globules is admitted, and the description of that motion, 'turning over,' precludes the idea of purely mechanical agencies." Again he speaks of "Motion being distinctly perceived by several observers." In the same Journal of July, 1850, page 2, Dr. Riddell, in speaking of the movements of globules in the blood by adding a solution of common salt says, "This motion was distinctly visible twenty-four hours after adding the salt water." Page 13 of the same number (July) Dr. Hort observes that "the neutral salts whose effects have been tried on the blood, present great and striking similarity of action. They are opposite to congestion in a remarkable manner. Page 19 he speaks of muriate of soda as exalting the vitality of the corpuscles, increasing their motion, etc., as being "decidedly opposed to coagulation or congestion of the blood."

If any one doubts that the blood has a distinct and independent vitality of its own, let him place it under a good microscope and see for himself. I believe that Drs. Hort and Riddell were the first to prove the vitality of the blood corpuscles under the microscope. And that the credit of the discovery that a solution of common salt would excite the corpuscles into greater vibratory

action, belongs to Dr. Riddell. Now, as to the suggestion that this vibratory motion of the blood corpuscles assists capillary circulation. It may be advantageous to make a few quotations from Carpenter's Human Physiology. Speaking of the circulation of the blood, page 532, after admitting that the force of the heart is sufficient to propel the blood through the system, says, "But there are certain residual phenomena even in man, which clearly indicate that this is not the whole truth; and that forces existing in the blood-vessels have a considerable influence in producing both *local and general modifications* of the heart's action. Such, for instance, would appear to be the interpretation of the fact, that whilst any variations in the action of the heart affect the whole system alike, there are many variations in the circulation, which, being very limited in their extent, cannot be attributed to such central disturbances, and must therefore be dependent on causes purely local." Here Dr. Carpenter draws an analogy between capillary circulation of animals and the ascension of the sap of plants. I think he is clearly in error; there can be no strict analogy. Nowhere in vegetable life can we find any thing like a heart—high or low—from the most gigantic oak that ever graced a forest, to the lowest (vilest) plant that ever sprang from the earth. Besides not being able to find any circulatory apparatus in plants, such as a heart, arteries and veins, we find no analogy between animals and plants if we take the other horn of the dilemma. Prof. Riddell, in the September No. of the New Orleans Medical and Surgical Journal, 1852, page 176, says, "Endosmotic imbibition at the rootlets and exosmotic evaporation from the leaves, contribute thus efficiently to the ascent of sap in trees." Now, who ever heard of an animal having either roots or leaves? True, as Dr. Carpenter says on page 535 of his work, "in the lowest animals the movement of the circulating fluid seems as independent of any central organ of impulsion, as it has been shown to be in plants." But in these very animals there is no true circulation; they take in oxygen by imbibition, as Dr. Riddell says, and hence can have no need of a heart, arteries and veins.

I do not mean to say that this vibratory motion of the corpuscles is of itself sufficient to account for the capillary circulation. I only suggest that it assists the aforesaid circulation, and that the burden of this assistance is in a reciprocal ratio with the heart's action. For instance, Dr. Riddell informs me, that he has uniformly observed that the vibratory motion in blood taken from a fever patient is much greater than that in blood taken from a subject in perfect health.

Dr. Carpenter, page 551, remarks, "Cases are of no very unfrequent occurrence, in which the heart is absent during the whole of fœtal life, and yet the greater part of the organs are well developed." He adds, that in these cases there is nearly always a perfect twin fœtus. But Dr. Houston of Dublin, after careful examination, has "obtained the decisive result that it seemed impossible for the heart of the twin fœtus to have occasioned the movement of the blood in the imperfect one; and that some cause present in the latter must

have been sufficient for the propulsion of the blood through its vessels. Dr. Carpenter says, same page, "It is evident that a single case of this kind, if unequivocally demonstrated, furnishes all the proof that can be needed of the existence, even in the highest animals, of a capillary power; which, though usually *subordinate to the heart's action*, is sufficiently strong to maintain the circulation by itself when the power of the central organ is diminished."

I could cite many other passages from Dr. Carpenter, but as they all partake more of suggestions than demonstrations, I forbear. But I think from those already quoted it can be seen, that great Physiologists are not satisfied that the heart and vis a tergo and vis a fronte alone cause the circulation of the blood.

From the foregoing I draw the following inferences:

1. That the muriate of soda, held in solution in the blood, prevents coagulation and congestion of the corpuscles.

2. The vibratory motion prevents the corpuscles from becoming "water logged" in the vessels.

3d. That the vibratory motion assists capillary circulation in a reciprocal ratio with the heart's action.

NEW METHOD OF ARRESTING NASAL HEMORRHAGE.

M. Dumas has resorted to direct compression of the *alæ nasi* to arrest epistaxis. By this means he checked a most obstinate and rebellious case of nasal hemorrhage in a subject recovering from an attack of typhoid fever. He grasps the wings of the nose with the ends of his fingers, and in ten or twelve minutes the most obstinate hemorrhrge may be checked.

Another method, and one which has been resorted to with complete success by Dr. Gibon, is *compression of the carotid artery*, on that side from which the blood flows. This is easily done, and is entirely free from the objections that may be urged against the tampon, and the usual mechanical means generally adopted in nasal hemorrhage. We glean these items from the August No. for 1852 of the *Journal des Connais. Med. Chirurg.*

CYANURET OF POTASSIUM IN TETANUS.

Our July issue contained some observations made by Dr. S. Martin in our cotemporary, *L'Union Medicale*, which would lead the reader to suppose, from our editorial remarks, that the cyanuret failed to produce any impression on the disease. We glanced at the article hastily, omitting to enter into details of the treatment. Dr. Martin assures us that the medicine paved the way for the cure—which was afterwards consummated by the chloroform. He informs us that he has treated a large number of cases of tetanus with the cyanuret of potassium, and with the most satisfactory results in every case.

AN ANALYTICAL REPORT OF THE UNITED STATES MARINE HOSPITAL,

FOR 3 MONTHS ENDING SEPT 30, 1852. BY P. B. MC'KELVEY, SURG.

DISEASES.	Discharg'd in July.	Aug.	Sept	TOTAL.
Arthritis -	1		1	2
Anæmia -	1			1
Abscess -	1			1
Ankle, Sprain.		1	1	2
Ascites -			1	1
Bronchitis -	4	3		7
Contusion -	5		1	6
Colic, Bilious	1		5	6
" Pict. -			2	2
Caries sup.max	1		1	2
Constipation -	1		2	3
Carbuncle -			2	2
Catarrh Pulm.			1	1
Coup de Sol. -		2		2
Diarrhœa -	10	9	9	28
Dysentery -		4		4
Debility, gen.			1	1
Dyspepsia			2	2
Erysipelas -			1	1
Fever, interm.	40	43	68	151
" remit.	1	7	12	20
" yellow			1	1
" typhoid	9	21	10	40
" Conges.		1	1	2
Frac.Tib.& fib.			1	1
Fistula in ano.			1	1
Gonorrhœa -	4	4	2	10
Hydrocele -		1		1
Hernia - -		1	1	2
Icterus - -	1	1		2
Iritis - - -	1			1
Lumbago -	1			1
Orchitis - -	2	1	1	4
Carried up	84	99	128	311

DISEASES.	Discharg'd in July.	Aug.	Sept	TOTAL.
Brought up -	84	99	128	311
Opthalmia - -	2	2	2	6
Paronychia -	1	4	3	8
Paralysis, par. -		1		1
Ptyalism - -	1			1
Phthisis pulm. -	4		3	7
Pneumonia -			1	1
Rheumatism -	11	10	14	34
Syphilis - -	20	11	18	49
Scrofula - - -			1	1
Tumor - - -		2		2
Urethra, Strict. of	1			1
Ulcer - -	5	8	5	17
Wound, contused	4	1	1	6
" incised	1			1
" punctured		1		1
TOTAL -	134	139	176	447
DIED OF				
Brain, cong. of	1	1	1	3
Fever, typhoid	2	2	1	5
" congestive			1	1
" yellow			1	1
Phthisis Pulm. -		2	1	3
Spine, Injuries of			1	1
Syphilis - - -		1		1
Tetanus, Traum.			1	1
TOTAL -	3	6	7	16

RECAPITULATION.

Remaining in the institution July 1st, - - -		97
Admitted during the quarter, - - - - -		467
Total,		564
Discharged during the quarter, - - -	447	
Died, - - - - - - - - - -	16	
	463	463
Total remaining October 1st, - - - - -		101

J. WINCHESTER BREEDLOVE, M. D.

Resident Physician.

ABSTRACT OF A METEOROLOGICAL JOURNAL FOR 1852.

BY D. T. LILLIE & Co., at the City of New Orleans.

Latitude, 29 deg. 57 min.; Longitude, 90 deg. 07 min. West of Greenwich.

WEEKLY. — 1852.	THERMOMETER.			BAROMETER.			COURSE OF THE WIND.	FORCE OF THE WIND, Ratio 1 to 10.	Number of Rainy Days.	Quantity of RAIN — Inches.
	Max.	Min.	Range.	Max.	Min.	Range.				
Aug. 26	89 .0	74 .0	15 0	30 .20	29 .80	0. 40	SW.	3 .00	3	0.470
Sept. 2	89 .0	74 .0	15 .0	30 .20	29 .92	0. 28	SE.	2 .60	1	0 145
" 9	86. 0	73 .0	13 .0	30 .10	30 .05	0. 05	E.	2 .55	2	0.065
" 16	89. 0	69 .0	20 .0	30 .20	29 .97	0. 23	N.	2 .00	1	0.280
" 23	89 .0	74 .0	15 .0	30 .20	29 .90	0. 30	S.	2 .30	2	0.810
" 30	90 .5	73 .0	17 .5	30 .20	30 .13	0. 07	SE.	2 .20	0	0.000
Oct. 7	87 .5	74 .0	13 .5	30 .15	30 .10	0. 05	E.	2 .30	2	0.020
" 14	86 .0	63 .0	23 .0	30 .25	30. 10	0. 15	NE.	2 .90	1	0.770
" 21	83 .0	76 .0	07 .0	30 .32	30 .08	0 .24	Nbye.	2 .28	0	0.000

The Thermometer used for these observations is a self-registering one, placed in a fair exposure. Regular hours of observation: 8 A. M., 2 P. M., and 8 P. M.

UNIVERSITY OF LOUISIANA.

The Medical Department of this State Institution will re-open about the 15th of November, 1852, complete in all its appointments. During the summer Prof. Wedderburn visited Europe, to hurry forward the preparations, models, etc., for the Museum, previously ordered, but which as yet remained behind. The session will open under the most favorable auspices, and during the summer and fall large additions, in the way of specimens, models, instruments, chemicals, etc., have been made to the respective Chairs..

After the 1st of November the Professors will take charge of the Charity Hospital, in which the student will acquire that sort of practical knowledge of diseases and their symptoms, which can never fail him when he enters the broad field of practice. Students and strangers will hazard nothing in visiting the city this season, as we are free of sickness, notwithstanding reports to the contrary.

ADVERTISEMENTS.

WORKS

OF THE SYDENHAM SOCIETY.

(LONDON.)

The undersigned having received the appointment of "*Local Secretary*" of this Society for the Southern States, would respectfully invite attention to the valuable *Standard Works* which it publishes each year, and furnishes to subscribers, at *extremely low rates*. The annual subscription is only *five dollars*, for which, usually *three*, but sometimes *four*, valuable volumes of the best medical works, are furnished. The works of several of the last years are still to be had.

For further information, apply to the undersigned, who will receive subscriptions and have the works delivered with the utmost despatch. The attention of Medical Colleges is particularly invited to the rare opportunity here presented, of supplying their libraries with standard works, both ancient and modern.

E. D. FENNER, M. D., Local Sec'y Sydenham Society,

Dec. 16, 1851. No. 5, Carondelet street.

UNIVERSITY OF LOUISIANA.

MEDICAL DEPARTMENT.

The Annual Course of Lectures in this Department will commence on MONDAY, November 15th, and will terminate in the ensuing March.

JAMES JONES, M. D., Professor of Practice.

J. R. RIDDELL, M. D., Professor of Chemistry.

WARREN STONE, M. D., Professor of Surgery.

A. H. CENAS, M. D., Professor of Obstetrics.

A. J. WEDDERBURN, M. D., Professor of Anatomy.

GUSTAVUS A. NOTT, M. D., Professor of Materia Medica.

THOS. HUNT, M. D., Professor of Physiology and Pathology.

The Department of Practical Anatomy will be under the control of the Professor of Anatomy.

The Dissecting Rooms will be open from the third Monday in October to the 1st of April.

The Faculty are Visiting Physicians and Surgeons of the Charity Hospital, and will attend this institution regularly, from the 1st of November to the 1st of April, and by their Clinical Observations and Lectures, daily delivered to the Students, will afford extraordinary practical advantages to their medical class.

There are about one thousand cases treated daily in the wards of this Hospital.

The number of patients is nearly twenty thousand in the year.

January1 THOS. HUNT, M.D, Dean.

KENTUCKY SCHOOL OF MEDICINE.

The third session of this institution will commence on the first Monday of November next, and continue four months, with the following Faculty and course of instruction.

Benjamin W. Dudley, M. D. Emeritus Professor of Anatomy and Surgery.
Robert Peter, M. D., Professor of Chemistry and Toxicology.
Thomas D. Mitchell, M. D., Professor of Theory and Practice of Medicine.
Joshua B. Flint, M. D., Professor of Principles and Practice of Surgery.
Ethelbert L. Dudley, M. D. and James M. Bush, M. D., Professors of Special and Surgical Anatomy and Operative and Clinical Surgery.
Llewellyn Powell, M. D., Professor of Obstetrics and Diseases of Women and Children.
Henry M. Bullitt, M. D., Professor of Physiology and Pathology.
Erasmus D. Foree, M. D., Professor of Materia Medica and Therapeutics.
David Cummings, M. D., Demonstrator of Anatomy.

The fees for the whole course of lectures amount to $105. Matriculation fee $5, to be paid once only. Graduation fee $25. Dissecting ticket 10. Hospital ticket 5.

JOSHUA B. FLINT, Dean of the Faculty.

Louisville, July 6th, 1852. sept 1 2t

UNIVERSITY OF LOUISVILLE.

MEDICAL DEPARTMENT.

FACULTY.

The lectures in this Department will commence on the first day of November next, and terminate on the last of February.

Charles W. Short, M. D., Emeritus Professor of Materia Medica and Anatomy.
Benjamin R. Palmer, M. D., Professor of Descriptive and Surgical Anatomy.
Lunsford P. Yandell, M. D., Professor of Physiology and Pathological Anatomy.
Samuel D. Gross, M. D., Professor of the Principles and Practice of Surgery.
Henry Miller, M. D., Professor of Obstetric Medicine.
Lewis Rogers, M. D., Professor of Materia Medica and Therapeutics.
Benj. Silliman, Jr., M. D., Professor of Medical Chemistry and Toxicology.
Austin Flint, M. D., Professor of the Theory and Practice of Medicine.
T. G. Richardson, M. D., Demonstrator of Anatomy and Dissector in Pathological Anatomy.

The fee for admission to the Lectures of each Professor is $15, payable invariably in advance.

Matriculation and Library fee together, $15.

Graduation fee $25.

Practical Anatomy and Dissection $10.

Ticket to be taken at least once before graduation. Rooms open from the first of October.

A preliminary course of lectures, free to all students, will be delivered during the month of October.

Clinical instruction is given twice a week at the Louisville Marine Hospital ; ticket $5, to be taken once before graduation.

A Clinique has also been established in connection with the University, at which operations are performed, and cases prescribed for and lectured upon in presence of the class.

Good boarding can be procured at from $2 50 to 3 per week.

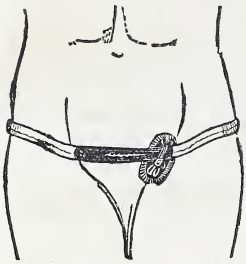
sep 1 L. P. YANDELL, M. D. Dean.

SHERMAN'S NEW PATENT TRUSS.

TO THE MEDICAL PROFESSION.

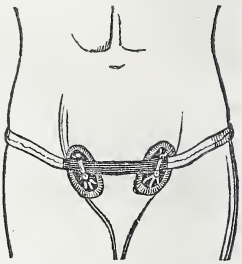
SINGLE TRUSS,

AS APPLIED



DOUBLE TRUSS,

AS APPLIED



The attention of Physicians who have not examined Shermans New Patent truss, is, by this medium, respectfully called to the important advantages it possesses over any and every other, being totally different, in construction and application, from the many kinds hitherto offered and applied for the relief of Ruptures. It is curved and shaped so as to fit close to the body, crossing round to the fore part of the body, the ends being attached with a strap on the back, relieving the spine, thereby, from all pressure. The block, or pad, mounted with a spring, has a peculiar and agreeable action, and is so fixed to the main spring with screws, that it may be loosened and moved to bear directly over the hernial ring, where, when fastened it will remain, and perfectly retain the rupture, under the most violent exercise, or in any position the body may assume; a very important consideration, and one, too, that is not found in any other instrument. The truss has been successfully applied in the largest and most difficult cases of Hernia, after every other in use had been tried, and found wanting; in two instances, after the parties had vainly made a trip to England and France, to find some mechanical contrivance that would answer their purpose. Physicians are cordially invited to call at the proprietor's office, and examine the new instrument in the success of which, it is presumed, they feel some interest.

Physicians who recommend to me their ruptured patients may be assured of their being properly fitted with a Truss suited to the form and condition of the rupture, as my whole time is devoted to that particular branch of surgery.

I feel proud to state to those who are far off, and have not yet seen, or perhaps heard, of my new, useful and much needed Truss, that the following eminent Surgeons and Physicians have recommended to me for treatment their ruptured patients: Drs. Stone, Cenas, McCormick, Hester, Jones, Moss, Bein, Cartwright, Tiffin, Valetti, Turpin, and others.

My charges are reasonable, when the utility and effect of the instrument are considered.

The Truss is sold and fitted only by the proprietor, at his office, No. 70 St. Charles street, New Orleans.

DIRECTIONS FOR MEASUREMENT: The number of inches around the hips and side the rupture is on.

I also use an Embrocation, a powerful astringent, in connection with the Truss, to aid in curing Hernia, and which, as a practitioner said to me, ought to be recommended in every case, as people are generally more negligent of ruptures than of any other affliction, and therefore too many restrictions could not be enjoined to make them careful. The preparation is applied externally twice a-day—night and morning. I have known it and the Truss to cure ruptures in six months, which, without the liquid could not have been cured in double the length of time. —To guard against deceptions, I have put it up in bottles, with these words blown in the glass: 'J. A. Sherman's Rupture Remedy, New Orleans.'

J. A. SHERMAN.

SHERMAN'S PREMIUM PATENT ELASTIC

Shoulder Braces.

Shoulder Braces are an essential article of dress—not of late origin, however, as many suppose, for they have been used among the nobility and higher classes throughout Europe, for the past century. They are used for the prevention and correction of unsightly and injurious habits, to aid in forming a graceful figure and manly chest; to enlarge the chamber in which the heart and lungs lie—to preserve these important organs from oppression, constraint and disease, and to allow them room for free and healthy action. Where disease has already fixed upon the lungs or heart, the use of the Brace is indispensable.

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THE NEW-ORLEANS

MEDICAL AND SURGICAL JOURNAL.

JANUARY, 1853.

Part First.

ORIGINAL COMMUNICATIONS.

I.—IS TYPHOID OR EPIDEMIC PNEUMONIA IDENTICAL WITH PERIODIC FEVERS?

BY S. L. GRIER, M. D., OF MISS.

The prevalence in late years of Epidemic Pneumonia and its kindred diseases in our Southern States, presents a most interesting field for pathological investigation, and the high grade it assumes in our mortuary statistics, demands that this investigation should be diligently and earnestly pursued.

The writer would offer a few considerations on this subject, with a view, chiefly, to elicit information from those who may have had greater opportunities of examining the disease, and also with the hope that a profitable discussion of the subject may be promoted thereby.

The September number of the Charleston Medical Journal contains an essay from the pen of Dr. La Roche of Philadelphia, combatting the opinion of those who maintain a close connection between Pneumonia and Autumnal or Periodic Fevers. His paper, we think, satisfactorily demonstrates that they are two distinct and independent diseases: but the argument of Dr. La Roche, able and conclusive as it certainly is, does not embrace and decide the question to which we wish to call at-

tention. No one, we suppose, unless obstinately wedded to a theory, will contend, that the acute, sthenic, and generally sporadic Pneumonia, as it exists in the mountainous districts of our Eastern and Middle States, is identical with, or bears even a close relation to, periodical fever, as it appears in malarious countries the world over. The question of peculiar interest to us is, whether or not the Pneumonia so common of late years in the South, known by the names of Typhoid Pneumonia, Asthenic Pneumonia, Bilious Pleurisy, Winter Fever, Lung Fever, and a host of similar appellations,—attacking most frequently the negro population, and often assuming an epidemic form,—is this disease, in its causes, its development, or in its pathological character, identical with periodic fever, and is it amenable to the same mode of treatment?

In affirmation of the question thus propounded, there have been numerous advocates from all parts of the country where the disease generally prevails. Foremost and most decided in support of these views is Dr. A. P. Merrill, Professor of Materia Medica and Therapeutics in the Medical School of Memphis, Tenn. His essay, first published in the New Orleans Medical Journal, and subsequently in pamphlet form, presents his views with great clearness and precision. The strong and trenchant style with which Dr. M. supports his opinion, and opposes all, whether teachers or practitioners, who may entertain an adverse theory, as well as his acknowledged ability and acquirements in the profession, will, we apprehend, do more towards carrying conviction of the truth of his positions, than any force of argument he brings to fortify and uphold them.

The reports for successive years, made by our army officers stationed in Arkansas, and witnessing the disease as it appeared in different seasons, and different circumstances, are also strongly in favor of the identity of pneumonic inflammation with periodical fever. Their opinion seems based principally on the effect of a similarity of treatment. The same course was pursued successfully as in intermittent and remittent fever, and therefore the origin and nature of the disease was the same.

Various communications have also appeared in the medical journals, emanating from sources where the disease has prevailed, and in support of these views; predicated, for the most part, upon the success attending an anti-periodic plan of treatment.

Now, with all due deference to the names and the authority which are arrayed in defence of this theory, we beg leave to differ from it. We do not believe that periodicity is an essential element in this dis-

ease, and consequently we do not believe that Peruvian bark and its salts, *as anti-periodic agents*, are the essential elements in its cure.

A few of the reasons that have influenced us in this conclusion may not be out of place, and may serve somewhat to elucidate the question under consideration.

1st. The season of the year in which Pneumonia prevails is one mark that distinguishes it from periodic fever; the latter is not more peculiar to the summer and autumnal months, than is the former to the winter and spring. This, say the advocates of the identity of the two affections, is but the modification of the disease by a change of temperature, in which certain local lesions are developed secondarily and superadded to the primary periodical phenomena,and therefore to be considered as complications, and not the essential features and characteristics of the disease. This explanation would have more weight, and might possibly be admitted as conclusive, did it at the same time extend to, and account for, other points of difference.

Pneumonia Typhoides is very frequently epidemic, and will often appear in localities that are comparatively free from malarious diseases. Some of the most malignant epidemics we have known have been on plantations, where periodic fever can hardly be called at any time an endemic disease. Such fevers, strictly speaking, are never epidemic. Yellow fever and the epidemic forms of bilious fever, are not periodic. The break-bone fever, we believe, knows no intermission. However closely the fevers may be allied with the ordinary intermittents and remittents, the point of resemblance is certainly not in periodicity. Periodic fevers, we assert, are rarely epidemic; and the prevalence of them bears a remarkable proportion to the degree in which we know the locality to be affected by malarial influence. In this respect, we think Pneumonia and periodic fever are presented in striking contrast.

Again—Acclimation affords no kind of security against Typhoid or Epidemic Pneumonia. It attacks alike old and young, natives and strangers. Whereas against periodic fever acclimation does prove, in some degree, a safeguard. However limited this influence may be, so far as it goes, it makes periodic fever to differ essentially from Pneumonia.

In the meteorological relations of these two diseases, we think we see a marked discrepancy. However diversified and unsatisfactory may be the theories advanced concerning the cause and origin of climatic fevers, it seems to be an established fact that the combined influ-

ence of heat and moisture are pre-requisite to their production. The tabular reports published on this subject demonstrate, beyond all cavil, that a wet summer, succeeded by a dry, hot autumn, will invariably give rise to a corresponding amount of fever, both periodic and continued. Will any of the advocates of the doctrine in question affirm, that *heat* and moisture are the precursors of Epidemic or Typhoid Pneumonia? We trow not.

The susceptibility of the two races places the class of periodic and autumnal fevers in direct variance with the class of Pneumonic diseases, as does also the relative mortality of these two races. The negro is more liable to Pneumonic attacks than the white race, and the complaint proves more fatal to them. In regard to autumnal and periodic fevers, this statement may be reversed. The white race is the more susceptible to these diseases and offers less resistance under them. Is there not a contrariety here?

One other point of disparity we may notice, that will perhaps tend to show the antagonism, rather than the identity of these diseases. We mean the manner in which they *terminate*, whether favorably or otherwise. Periodic fever we profess to cure. We attack the disease *vi et armis*, and destroy the whole chain of periodical morbid phenomena by breaking a single link in that chain. The original habit of health again reassumes its sway, and we claim the credit of a *cure*. Not so, however, in Pneumonia. By no *coup de grace* can we gain a victory here. Our most successful efforts will only check the progress of the disease, and conduct it back, step by step, through the gradual stages of resolution, and at best we have but assisted and promoted a *recovery*. There is no specific for Pneumonia. Even quinine exerts its benign influence in this affection, as do all other remedies, by promoting resolution of the disease. Their action is indirect, however obvious and rational the process may be. The same difference of termination is observable in the fatal event of these two classes of disease. In Pneumonia a mechanical obstruction and disability hinders the vital function of respiration, and we call it *death by apnœa*. In periodical fever the modes of dying are various, depending on the peculiar complications and other causes. In uncomplicated cases death would probably take place by *asthenia*. Will some of the advocates of the views in question explain and reconcile these apparent discrepancies?

We will now look at some of the arguments adduced in favor and support of the unity of Pneumonia and periodic fever. So far as we are aware, they are based principally on the fact, that the two classes

of diseases prevail either simultaneously or consecutively in the same locality, and that they both yield to the same mode of treatment.

Our reply to the first of these statements has been anticipated by our previous comparison of the two diseases. Admitting the truth of the assertion, it proves nothing conclusively in favor of the identity of those diseases.

Upon the plea derived from the good effects of a similarity of treatment, we have a word to say; and for the present we will accept their therapeutical views on this subject. In the treatment of diseases a "rational empiricism" must sometimes be allowed. We will admit, for the sake of argument, that both classes demand the same mode of treatment, and as the writers in favor of identity say, are to be controlled only by the same medicinal agents. Farther than this we cannot follow them, and when they attempt to deduce pathological principles from such data, we must withold our assent, and oppose the fallacy of their reasoning. It is truly the inductive process, run mad. It is to be "imbued with the principles of the Baconian philosophy," with a vengeance. Let us see if a few parallelisms, gathered at random, will not illustrate its absurdity. Calomel will check the ordinary inflammation of serous membranes; it will also exert a controlling influence over certain forms of syphilis—therefore peritonitis, pleuritis, meningitis, and forsooth iritis, are identical with syphilis. Opium will arrest a hæmorrhagic flow; it will also alleviate pain—therefore colic and dysentery are one and the same disease. Camphor is both anodyne and stimulant. We give it to relieve the painful affection of chordee; it is also used in typhoid fever—therefore gonorrhœa must henceforth be classed with typhoid diseases! Upon these principles it is that Pneumonitis and periodic fever are identified; "the subjection of the former to the same remedies which are found to arrest the course of the latter, imply a close alliance, if not a common origin." Now, this process of reasoning, we conceive, is not more false in logic than it is erroneous in pathology. Granting that quinine is of the first importance in the management of Pneumonia, it is by no means conclusive evidence that the disease is periodical, or at all allied to periodic fever.

In the further elucidation of the question at issue, let us examine briefly some of the effects and properties of the drug in which the advocates of identity find so strong a testimony in its favor. The action of quinine on the human system is at least threefold—

1st. It is an anti-periodic. This is the property which constitutes

its chief value, and which makes it so specific in counteracting all paroxysmal affections. It possesses this power in common with a few other drugs.

2d. Quinine is also a sedative; or as this term implies a theory in regard to its modus operandi, we will style it a *febrifuge*. This property is not, like the first, peculiar to it alone. Many other pharmaceutical preparations belong to the same class. It is this characteristic of quinine that makes it so available in the treatment of remittent and continued fever by the "abortive method." It is our lot to practice the profession of medicine in the community in which this practice originated, some thirty years ago. The same mode of treatment still continues in vogue; nor do we know of a single instance in which bad effects have followed to contra-indicate its use, or challenge the wisdom and sagacity which first suggested its employment in the management of our endemic fevers. The rationale of this febrifuge action is somewhat obscure. Various explanations have been offered; but we know not that any have been received as satisfactory. Whatever its primary action may be upon the nervous centres, our opinion is that the immediate febrifuge effects are entirely owing to its sedative influence on the circulatory system. The researches of M. Brequet, in this department of Therapeutics, as reported by MM. Andral, Rayer and Lallemand to the French Academy of Science, prove that such is invariably the action of the drug in question. The administration of it was inevitably followed by a diminution of the force and frequency of the pulse. Of course when the heart's action is reduced, the lungs will feel a corresponding relief, and no other effect upon the respiratory organs was observed, except this produced through the medium of the circulation.

3d. The last effect of quinine that we shall notice, in connection with the subject under consideration, is its tonic, corroborant, or quasi-stimulant effect. It may seem difficult to reconcile this with the sedative properties of quinine; but that it has this stimulant effect we all know, both from observation and personal experience; moreover, the scientific investigations of the *savans* before referred to go to show that its effects on the nervous centres are, great cerebral excitement and a general exaltation of the nervous functions. Its local action on the digestive organs was, to produce inflammation of the mucous membrane; and, what is perhaps more to our purpose, the effect on the blood was to increase the proportion of fibrine. This change in the character of the blood does not take place chemically. When blood is drawn from the system and submitted to the experiment, it must therefore be produced by the influence of quinine exerted upon the process of hæmato-

sis. The action is not chemical but physiological. Now what relations do these several anti-periodic, sedative and stimulant effects bear to Typhoid Pneumonia? As an *anti-periodic* it may sometimes be required in the management of the disease, when it occurs in malarious districts. A periodic character may have been impressed upon it by the locality; and in such instances an anti-periodic treatment will be necessary, in order successfully to contend with it. This by no means proves the unity of the two diseases. It is purely adventitious and not the essential element of the disease. A single instance occurring in a different locality, and treated without the aid of anti-periodic agents, is sufficient to controvert any number of cases adduced in support of these views.

As a *sedative*, we think we see a much stronger reason in favor of its use in Pneumonia. To reduce the action of the heart, and consequently ensure a slower propulsion of the blood through the lungs, would be of all things the most desirable in Pneumonia; and this seems to be the sole and direct influence of quinine upon the thoracic organs.

As a *tonic* or *stimulant*, its use would seem to be indicated by the deficiency of fibrine in the composition of the blood. This liquified condition of the blood obtains in all Typhoid affections. The stimulant effects of quinine upon the nervous centres is not so plainly applicable to the disease under consideration. We have in Typhoid Pneumonia undue cerebral excitement, while at the same time an incubus seems weighing upon all the nervous energies. These irregular nervous phenomena in all Typhoid affections, are so peculiar and so obscure, that all attempts to solve them would perhaps have been better accomplished by a candid confession of ignorance; and while our knowledge of them, as well as of the modus operandi of quinine, remains so crude and imperfect, it would be well to make a more cautious and intelligent use of that medicine in the treatment of them, particularly as its place can very often be supplied by other remedies, the action of which is more obvious to our perception.

With this reference to the action of quinine on the various functions of the human system, we leave it for others to decide whether it be necessary to classify Typhoid Pneumonia with periodic fevers, in order to account for the beneficial results attending its administration in that disease. Certain we are that we have met with frequent cases of asthenic or Typhoid Pneumonia, in which there were no more palpable indications for an anti-periodic than for an anti-phlogistic treatment.

Local depletion, counter-irritation, combined with the use of stimulating expectorants and diaphoretics, were the means, under which the cases referred to, progressed to a favorable termination. We do not offer this as constituting the best and only true method by which the disease is to be controlled; but we wish to advance it as evidence against the identity, or similarity, of the two diseases under consideration. Periodic fever, we believe, is not generally amenable to such a course of treatment; and here we are reminded of the testimony which Homœopathy brings to bear on this question. This system of quackery, in common with many others, has served to throw light on subjects of medical philosophy, which could not have been gained without resorting to the same unscrupulous tampering and experimenting with "human creatures' lives," in which they have so recklessly indulged. We may therefore be permitted to introduce their experience in the matter on hand, and ask why it is that their most vaunted triumphs, and the statistical records to which they point with most exulting confidence, are drawn from this very class of Pneumonic disease, while the class of periodical fevers forces them to display the cloven foot, and invoke the aid of a more honest and rational practice. Far be it from our intention to endorse any part of the globule or infinitesimal theory; but we will say, that setting aside the chicanery and fraud of the system, it is better than an erroneous allopathic practice, inasmuch as to do nothing is better than to do harm.

The degree of encouragement and adherence which this and the kindred humbugs have secured, may possibly be due somewhat to the prevalence of *routineism* in the medical profession; and this constitutes one of the grand objections we would urge against the reception of the dogmas which assert the identity of Pneumonia and periodic fevers. Admit these views and a routine practice will soon reduce the profession to a level with the veriest empirics and nostrum venders of the day. The "quinine doctor" of this age will only succeed the "calomel doctor" of the last, and neither, perhaps, will deserve a higher grade in the scale of scientific merit than the "steam doctor," or the "water doctor," who receives no honor at all. Ultraism in medicine we hold is quackery, and we venture to say that among the supporters of this doctrine which teaches that Pneumonic affections are nothing but the local indications and concomitants of idiopathic fevers, may be found those who a few years ago were at the other extreme, subscribing to the tenets of the Broussais school, which pronounced idiopathic fever to be nothing but the outward expression of an internal local lesion. If we must incline to one extreme or the other, perhaps it

would be well to reject all classification of disease, and let the practitioner intelligently and judiciously adapt the treatment to each particular case, rather than thus endeavor to generalize all our climatic diseases under the one designation of periodic fever, and then with oracular assurance affix the potent name of quinine as the grand infallible remedy.

As bearing directly on this point, we quote the words of the late Dr. Harrison of New Orleans, in whose death our profession lost one of its brightest ornaments, and whose contributions to Pathology and the kindred sciences remain the most appropriate tribute to his worth—the best memorial of his genius. Speaking of Yellow Fever, Dr. H. says —"As to the details of the treatment, they must be left to the judgment of the Physician. Any specific treatment is just as absurd in Yellow Fever as in any other disease. The Physician is not called in to treat an abstraction, but a sick man. Remedies beneficial in one case may be most injurious in another; and success in practice will depend, in a great degree, upon the sagacity and acquirements of the Physician." These remarks are not inapplicable to our present subject. Even in the hands of the routineist, quinine will sometimes prove inadequate to the cure of Typhoid Pneumonia. It is one of our most fatal diseases, and we are not sure that quinine has not sometimes helped to hasten the fatal issue. However this may be, the wholesale and indiscriminate use of it has incurred for us the charge of empiricism. The heroic doses of this drug in vogue among Southern practitioners, are among the marvels of medicine. Our Northern brethren hear of them with a smile of incredulity, if not with the sneer of derision. In this case ridicule is certainly no test of truth, as is evinced by the wonderful discoveries but recently made by our trans-Atlantic friends in the use of large doses of quinine.* Truly they seem to us behind the age. But will any one assert that we are entirely clear from reproach in the empirical and lavish use of quinine?

A few years since a friend of the writer visited the Southwest, fresh from what Dr. Cartwright would term the "hyperborean training" of the Northern Schools. He was not a little astonished by the free and apparently unlimited use of quinine which he witnessed. At last it became an object of curiosity with him to find something for which quinine was not administered, but gave up the search as unsuccessful, when a case finally fell under his observation—one of those terrific accidents so common on our plantations—a lacerated wound of the hand

* See Dundas' Sketches of Brazil and Rank. Abs. No. 15, p. 208.

and forearm, from being caught in the saws of a gin-stand. The ordinary dressing was applied to the wound, and to the amazement of our Northern friend, the patient was placed on anti-periodic doses of quinine!!

The treatment of Pneumonia by quinine, we fancy, is sometimes conducted on similar principles, or if not, will some of the friends of that system favor us with the Pathology and Therapeutics on which their practice is based?

II.—ON THE USE OF QUININE IN TETANUS.

BY E. A. PYE, M. D., LOUISIANA.

In the spring of 1850, Dr. N.———, a retired Physician of Catahoula parish—a gentleman of intelligence and information—called on me to know "if I had seen any thing, in the course of my late reading, worthy of a trial in Tetanus." He had a negro boy, about 14 years old, laboring under the most violent attack of Traumatic Tetanus that he ever witnessed. The boy had fallen from a horse some weeks before, receiving a wound in the face. The wound was apparently slight; little attention was paid to it, and it healed in the usual time. Symptoms of Tetanus, however, soon made their appearance, and had gone on constantly from bad to worse, in spite of the treatment. He had been purged, blistered, had taken opium, whiskey, spirits turpentine, calomel, the hot and cold bath, but with no relief. "In short," said the Doctor, "I have gone through the routine. I have tried the old practice; unless something else can be done the boy must die." I recollected that in the New Orleans Medical and Surgical Journal for 1849 I had noticed a case, reported by Dr. Brickell, of the Charity Hospital, in which chloroform and quinine had been given, and in which the cure was attributed to quinine, in 30 grain doses. It seemed to me, at least, worthy of a trial—the quinine. The suggestion was at once adopted. We decided to begin with 30 or 40 grains, and increase the dose until some effects were produced. The Doctor was rather doubtful of finding his patient alive on his return; but promised, if he was still living, to give the quinine a fair chance. On his return he found all the symptoms increased in intensity. The intervals between the paroxysms had dwindled to but a few moments of partial ease; with these transient exceptions, he was in a state of constant and most vio-

lent episthotonos; and it was evident that unless relief could be procured, death must soon close the terrible scene. Taking advantage of the first opportunity, the Doctor got down his throat 30 grains of quinine—examining his watch at the same time. In one hour he again visited him; he could perceive no change; repeated the dose. In the course of the next two hours the Doctor thought or fancied he perceived slight—the slightest possible diminution in the intensity of the paroxysms; at any rate the boy thought himself relieved, and begged for the medicine. He got 30 or 40 grains. The improvement in the next two hours was evident. The paroxysms were not only less severe, but the interval was also decidedly longer and freer from pain. The boy's sensation of relief was yet more decided, and he clutched at his quinine and swallowed it with an evident "*gusto.*" He threw his arms heavily about, saying that he felt "drunk" and "happy!" The case went on regularly improving; the only other medicine given being an occasional dose of oil, to keep the bowels open.

At the end of two weeks I met the Doctor. The boy had taken two ounces of quinine; was entirely free from all symptoms of Tetanus; had experienced no bad effects from this enormous quantity of quinine; no tinnitus aurium—deafness—fulness of the head. The muscles had become relaxed, the skin was acting finely, the bowels were free. The only peculiar effect of the quinine being the one mentioned above, which he frequently expressed—the feeling as if he were about half drunk or "happy." Here a prudential regard for the "man with the poker," or some other analogous event, from the sudden withdrawal of an agent, whatever its modus operandi, which had kept our patient "happy" for two weeks, despite of Tetanus, induced us to taper off; which we accordingly did, giving him about half an ounce of quinine, in gradually diminished doses, in the course of the following two weeks.

I saw him at the end of this time, well, fat and hearty. The Doctor promised to give me the notes of this case, which would have rendered it more satisfactory. Circumstances having prevented my getting them, I have thought it might not be altogether without interest as it is. In this age of heroic doses of quinine, the writer records his wholesale administration of the drug with much diffidence. He not only disclaims the unhallowed ambition of "out-Heroding Herod," in this regard, but deprecates truly, on the contrary, the "spirit of enormous dosing" so rife through the land. One may, however, sometimes find himself so situated that the maxim "occasio præceps" must stand in the place to him of all precedent. In the present instance, the result of treatment,

the circumstances of the case, the character of the gentleman by whom the medicine was administered—all combine to assure the writer that the practice, though seemingly ultra, was in reality only so much so as the occasion demanded.

Watson says there is no cure for Tetanus. Perhaps he is right; but Dr. Brickell records a case in which unequivocal symptoms of the disease yielded to quinine. I give you my facts for what they are worth. Let others contribute. "*Ex multis veritas.*"

III.—AN ESSAY ON BLOOD-LETTING, WITH ILLUSTRATIVE CASES.

BY JOHN J. CLOW, M. D., LOUISIANA.

Notwithstanding the varied and multiplied resources which have been added to the Materia Medica, by the discoveries of modern science, there is no therapeutic agent which we possess that is capable of more varied application, or of making so sudden and effectual an impression, either for good or evil, upon the system, as that ancient and much abused remedy, blood-letting; and I may add, that like all the other "Sampsons" of the Materia Medica, there is none which has been more frequently misapplied and perverted from its proper application, to the treatment of disease.

Instead of its having been an agent, the results of which could be calculated with certainty, its application has been as empyrical as that which has characterized the use of many others of the potent agents, which, within the present century, have augmented the resources of the practitioner of the present day so far beyond those of their predecessors. But, while observation and experience in the use of these have corrected many of the abuses, and yielded to a more rational application to the various stages and conditions of disease, there appears to have been no nearer approach to a correct application of that than in the days of Hippocrates.

It would neither be profitable, nor consistent with my present purpose to give a detailed history of blood-letting, from its first introduction up to the present time; it is sufficient to observe, that from that day to this, with one exception, it has been used for the purpose of moderating arterial excitement, and subduing inflammatory reaction.

The exception to which I allude is that of Dr. McIntosh of Edinburg. In the writings of almost all the older authors, it was laid down as an established principle, that the cold stage of intermittent fever was essentially a stage of debility; and according to their pre-conceived notions, blood-letting would increase that debility, and consequently prove fatal. But from an accurate observation of the phenomena of the cold stage, from perceiving that the signs of a retreat of blood from the surface to internal parts, were evident, from ascertaining, by dissection, that the viscera were overloaded with blood, and from recollecting that in chronic cases of ague, visceral disease were of common occurrence, and often the cause of death—from all these circumstances Dr. McIntosh was led to conclude that the old idea of debility in the cold stage was a mistaken one, and that much good might be done by bleeding in that stage, so as to relieve the congestion of internal organs. After entertaining this opinion for some time without putting it into practice, he finally had an opportunity of trying it upon himself; and so far from any of the dreadful results occurring, it was followed by immediate relief. Since that time the remedy has been extensively tried, and he has given an interesting and detailed account of it in his work on the Practice of Physic.

Without discussing the merits of the practice instituted by Doctor McIntosh, let us at least award him the meed of praise, for being the first to demonstrate the real nature of the cold stage of intermittent fever, and that the visceral congestion may be relieved by blood-letting.- But in common with all his predecessors, he used it merely as a means of regulating and controlling vital dynamics, and consequently made but one step in advance of them, in this, that they used it for the purpose of reducing action, whereas he used it for the purpose of increasing action. But according to my ideas of Pathology, this view is entirely too mechanical to be applicable to the living system, which is something more than a machine, to be kept in motion by the application of steam, or any other merely motive power. Disease of any sort is something more than deranged or perverted action; and Pathology something more than a collection of hypothetical opinions, hung on solitary facts, ingeniously devised to explain this or that symptom. "Nor is Therapeutics a system ingeniously arranged to explain the modus operandi of this or that remedy. Nor are they a partial set of opinions erected on *one* only of the many pedestals of fact on which the science of medicine should stand." (McIntosh.)

It is so seldom that we see blood-letting even alluded to, in essays on the treatment of Southern diseases, that we might be led to suppose

that it had been banished from the list of remedial agents ; or is it that *quinine in large doses* has so completely engrossed the attention of the profession, as to cause them to treat it with silent contempt ? Some eighteen or twenty years ago it was a favorite remedy in continued fevers of almost any type ; and among the objects for which it was employed, was that of cutting the fever short. And for this purpose it was frequently pushed to an alarming extent. It was thought that a small quantity, whatever its immediate effect, was of no service in cutting short the fever, and consequently, if the pulse returned to its state of reaction, the remedy was repeated ; and thus the vital powers were soon made to succumb to the heroic treatment, and either the disease or the constitution of the patient was compelled to capitulate at discretion.

But in the fevers which have prevailed for some years past, the bad effects of copious abstractions of blood, even when used in the outset of the disease, for the purpose of cutting fever short, have been so apparent, that even those who were trained to its use in previous years, have long ago ceased to expect that by such a measure fever may be broken abruptly in its progress.

But because experience has led us to the abandonment of the measure as a means of cutting short the most common varieties of idiopathic fevers, or of moderating arterial excitement, even in those varieties of acknowledged inflammatory character, is it not high time that we should examine into the principles which have guided us in its application, before we reject its aid altogether in the treatment of diseases. If, upon an examination into those principles, they should prove to be unsound, would it not be better to discard them, and adopt those which reason and experience prove to be more consistent with an enlightened Pathology ?

What are the rules which should guide us, according to the present doctrine, in the use of this remedy in the treatment of fevers ?— They are—

First. It is most serviceable in moderating reaction which tends to the inflammatory character, and in cases which put on the character of synocha and synochus.

Second. It should be employed only where general reaction runs high, as ascertained by the state of the pulse, the animal temperature, and local signs of inflammation.

Third. It should be regulated as to extent, partly, of course, by the age and constitution of the patient, and partly by the type in the parti-

cular case; but more especially by the prevailing character of the epidemic—larger evacuations being borne in the inflammatory than in the typhoid epidemics.

Fourth. Of the special criteria for regulating its extent, the safest and most precise is the state of the pulse, both before the vein is opened, and likewise under the flow of blood. It is most useful where the pulse is incompressible, whether it be feeble or contracted, whether very frequent or moderately so; and when it improves in softness when hard and full, and in fullness when contracted—but not under a very slight loss of blood. It is least useful, and often inadmissible, when the pulse is easily compressible, whether soft or jarring, and whatever its frequency; and when under the flow of blood it becomes either more jarring, or easily and quickly feeble, and fluttering, or slow.

Fifth. The effect on the one hand upon the symptoms of reaction, and on the other upon the adynamia, or nervous exhaustion, will generally decide whether the remedy has been correctly appealed to, and whether it ought to be repeated.

On the whole, much practice and discrimination are necessary to use the remedy with any advantage, or even with safety, for moderating reaction in the first week of continued fever; and it is so rare to find a case in which the conditions above enumerated obtain, that it has been abandoned by many of the most experienced and discriminating practitioners; and in some instances, for no other reason than that those who practice it are the most unsuccessful in the treatment of fevers.

My own experience in its use, the first year of my practice in the South, (1834) soon convinced me that as a general remedy in fevers it could not be relied on, and from that time up to the fall of 1842, I never resorted to its use except in well marked inflammatory affections, such as acute rheumatism, pleurisy, pneumonia, etc.; and I have known some practitioners who reprobated its use even in these. But at the time alluded to, I met with several cases of malignant intermittent, remittent and continued fever, in which all the ordinary modes of treatment were so totally inefficient, that I began to consider whether blood-letting might not be so practised, as not only to be admissible in fevers of an adynamic character, but really one of the most prompt and efficient remedies which we possess.

Having seen some cases in which persons expired in the second paroxysm of intermittent congestive fever, without any exhausting

discharge, and with their usual quantity of blood, their weakness and death could not have proceeded from the want of *blood*, or from any organic lesion, but from the want of *red blood*. According to Goodwyn, the only cause of the cessation of the contractions of the heart, when the chemical phenomena in the lungs are interrupted, is the want of excitement of the ventricles with red blood. And according to Bichat, under such circumstances there is a general affection of all the parts; the black blood, driven every where, carries weakness and death to every organ that it enters; that it is not from their not receiving *blood*, but from their not receiving *red blood*, that each organ ceases to act; that, in a word, all are then penetrated by the malarial cause of their death, namely, black blood. (Phys. Researches.) No one who has seen a person in the stage of collapse of congestive fever, can doubt that the blood is in a non-oxygenated condition, and that they die from asphyxia.

If blood-letting could be practised, not only with safety, but with advantage, in the cold stage of intermittent fever, when performed in the ordinary way, would it not be much more so if performed on a number of veins at the same time, and thus abstract a larger quantity of purely venous blood, while we take away little or no arterial blood? For it must be evident to any one who understands the anatomy and physiology of the sanguiferous system, that in taking a pint or a quart of blood from one orifice, there will as much or more arterial blood escape as there does of venous blood, and the strength of the patient will be reduced in a corresponding ratio. But if we open an orifice in both arms and both legs at the same time, we may take eight or ten ounces from each, and thus obtain from thirty-two to forty ounces of purely venous blood.

This opinion was strengthened by reflecting on a mode of blood-letting practised, it was said, with a happy effect, in the latter part of the last century, called Riverian, from the name of the practitioner who first introduced it; that was, to take it in small quantities often repeated; it struck me at once that its only advantage consisted in taking no arterial blood.

These reflections, together with the consideration that the essential cause of the congestion and engorgement of the capillary system is owing primarily to a vitiated state of the circulating fluids—all forced the conviction upon me, that the venous blood might be taken in a considerable quantity, even in the state of collapse in congestive fever, for the purpose of relieving the oppressed internal vital organs, and with the effect of restoring the lost equilibrium of the circulation, and

thus producing reaction, and at the same time restoring the function of calorification.

I was so far convinced of the truth of these deductions, that I determined to test them on the first opportunity, which occurred on the 19th November, 1842. I was sent for to see Mr. D. Jackson, aged about 35. He had been in bad health for a month or more, but was able to be about. (The weather had been wet and hot, until about the first of this month, when it had become quite cool, and on the 18th a violent north-wester blew all day and at night there was a severe frost—freezing water standing in vessels an inch thick.) On the morning of the 19th he was seized with a violent pain in the right side, extending from the right lumbar around to the epigastric region. He complained of constant coldness, and that his right leg was colder than the left. His tongue was covered with a thick white coat, his pulse contracted, weak, and compressible, his breathing oppressed and laborious ; in short, his whole appearance presented the *tout ensemble* of the deepest anxiety and distress, and under ordinary circumstances, such a case as I would dislike to see, but at this time I must confess I was glad to encounter.

Treatment.—I immediately ordered a tub of warm water, and had his feet put into it. I then corded his legs and opened a vein in each. I then corded and opened a vein in each arm, from which the blood ran pretty freely. I watched the effect upon the pulse, and soon found that it increased in volume and strength. I let it run until I had taken about a quart from both arms, without any perceptible change in the color of the blood, it being very dark and thick, and coagulated without a separation of serum, like clabber when first formed. The blood from the legs, the veins being small, did not run very freely, and from the appearance the water in the tub presented, I supposed that there was not more than eight or ten ounces came from both legs. After putting him to bed, I applied four cups to the right hypochondriac region and took about an ounce of blood with each. I then gave him ten grains carb. am. in solution, and ordered hot sage tea to be given to him freely, which soon produced copious perspiration. I then gave a pill, composed of calomel 5 grs., blue mass 5 grs., morph. half gr., and left three similar ones to be repeated every four hours until he took them all, and the next morning a dose of oil and turpentine. I then left him, and so confident was I of the success of the treatment, that I did not return to see him.

I saw him about a week afterwards in town, and he told me that the

medicine had acted well, producing free bilious evacuations; and that he had taken a dose of blue mass afterwards, which was all that he had taken, and he was then quite well.

This case occurred at a time when the character of prevailing diseases was unusually severe, several cases having terminated fatally in a few days, and where they lingered long, they invariably assumed the typhoid character; and I had one or two cases of this latter description, which had commenced with pretty much the same symptoms that this case did, especially coldness of the right leg, which persisted to the last; and I am confident that under ordinary treatment his case would have been a tedious and difficult one; but the treatment adopted cut it short in its forming stage, before fever was fully developed.

I am satisfied that the principles which should guide us in the treatment of fevers in this climate, ought rather to be, to anticipate reaction, and prevent it, than to suddenly cut it short, after it has taken place. And the neglect of this principle, in the use of blood-letting, is why the remedy has so often proved injurious rather than beneficial. It is generally resorted to in the height of the paroxysm, when the natural tendency is to terminate in a profuse sweat, which, of itself, is in many cases sufficiently exhausting, and the consequence is, that in many instances, a state, if not of complete collapse, at least bordering on it, is induced; and the case is converted from one of high reaction into one of congestion. This is favored by more than one circumstance.

First. There is generally more arterial than venous blood taken by the operation, and the strength of the patient is reduced as much or more than the disease.

Second. The operation is generally performed while the patient is in an erect position, so as to produce syncope; for it is not considered efficacious unless this state is induced; than which nothing can be more absurd and irrational. Admitting the principle to be a correct one, in highly inflammatory cases, where all the vital powers are in a state of preternatural exaltation,,—to bleed to syncope for the purpose of reducing this state of excitement, down to that state which is most favorable to a termination of the inflammation by resolution, and for the purpose of relieving the capillary system of a portion of its blood. If practised early enough, I admit that it will fulfil this indication. But if deferred until it is too late to answer this purpose, it is a bad practice even in the treatment of inflammation, as it will most certainly cause copious effusion, either of serum, of lymph, of mucus, or even a depo-

sit of fibrinous concretions; depending on the seat of the inflammation, and either of these terminations may prove suddenly fatal, or bring on secondary affections that will ultimately end in death.

But the condition of temporary reaction which constitutes the hot stage of idiopathic fevers, is a very different state from that induced by inflammation. It is an excited or preternatural state of the nervous and cerebral functions, inducing a temporary exaltation of the sanguiferous system, and must, according to the laws which regulate nervous action, exhaust itself. Besides, this stage of excitement is the only recuperative process which takes place in all the phenomena of fevers; and blood taken at that time is more highly vitalized than at any other period in the whole course of the disease. The circulation being accelerated, and the metamorphosis of the tissues, and the secretions and excretions being for the time suspended, the whole powers of the system appear to be concentrated on the functions of the lungs, and hence the chemical phenomena are very striking. This is evinced by the excessive heat, both at the capillaries of the surface and in the lungs—for both are concerned in the oxidation of the blood, and in the process of calorification. (And hence blood taken at this time is highly arterialized.) And by the time the nervous excitement has exhausted itself, the secretions are restored; the pulse loses its hardness and fulness; the breathing becomes free and natural; the bowels are more easily acted upon; the heat of the skin subsides; the headache and thirst abate; the appetite returns; and there is a gradual subsidence of the febrile symptoms; and in some cases a perfect remission or state of apyrexia takes place. This taking place, the patient is frequently enabled to return to his usual avocations as if in full health. And those cases in which the stage of excitement is the highest, are the very cases in which the apyrexia is most complete.

Why, then, in a forced and unnatural manner, cut short that which is so salutary in its effects? Would it not be more rational to moderate the excitement when excessive, and prevent or subdue local determinations—for this is really the only danger in this condition? This may be done by diaphoretics and cold applications; by a judicious application of cold water or pounded ice during this stage, we may guard against the bad effects of undue local determinations; and by the administration of proper diaphoretics we may reduce the excitement, and terminate the paroxysm by diaphoresis. But the diaphoretics which are proper to this condition, are not the depressing agents too often resorted to, such as tartar emetic, ipecac, etc., which, like blood-letting, are applicable to the inflammatory condition, for the purpose of

reducing arterial excitement. But in the condition we are now considering, we should select those diaphoretics which combine stimulating and sedative properties. For this purpose spirits nitre, paregoric, tr. digitalis and ant. wine, in the proportion of four parts of the first, two parts of the second, and one of each of the last, forms a valuable compound; and in teaspoonful doses every two hours, may be administered with the happiest effect. But no remedy, in my hands, has proved so generally applicable to the hot stage of fever, as carb. ammonia, administered well diluted with cold water, together with a plentiful supply of any of the domestic teas, such as sage, balm, catnip, etc., etc.

To return, however, from this digression, to the point under consideration. That is, the proper time to take blood, and the indications to be fulfilled in its abstraction in idiopathic fevers. This question involves another, which, however, would be out of place to discuss here —that is, what agency a deteriorated condition of the blood has in the causation of fevers. I shall dismiss it for the present, on the presumption that this much at least will be conceded, viz., that a deteriorated condition of the blood does exist, even in the incipient stage of all fevers, and that in congestive fevers the venous, or black blood, is in an undue proportion to the arterial or red blood. This is evinced by the contracted state of the arterial system, and the dilated or distended state of the venous system,—the pulse being small or contracted, and quick and weak,—while the veins are distended and large; the skin is cold, the respiration is oppressed and laborious ; all proving that a stagnation of the blood has taken place within ; and that it is not in the arterial system is evident, for the arteries have the power of dilating and contracting their dimensions according to their contents, and we find them contracted to their smallest dimensions.

According to the calculations of physiologists, there is about two-fifths of the blood circulating in the arteries, and three-fifths in the veins, when in a normal condition, Judging then from the difference between the volume of the pulse in a state of health and that in a state of congestion, there cannot be more than one-fifth of the blood in the arterial system in that condition. It is evident then, that in taking blood from a single vein in any considerable quantity, we reduce the strength of the patient more by the quantity of arterial blood that is taken through the vein, than the amount of venous blood relieves the congestion of the venous system. But if we open four veins at the same time, and take from eight to ten ounces of blood from each, we take a sufficient quantity to relieve the oppression of internal organs,

without at the same time taking away that portion of the vital fluid which is essential to nutrition. For the blood in the veins has already been deprived of those elements which enter into combination with the tissues, and has received those effete and worn out matters which have been thrown out in the metamorphosis which takes place in the capillary system.

It is supposed that the weight of the blood is equal to one-fifth of the body. An ordinary sized man then has from twenty-five to thirty pounds of blood, and in health, from ten to twelve pounds of this is arterial blood, and from twenty to twenty-four pounds is venous. But in the congestive condition, the proportion of arterial blood is diminished to one half; and we have but five or six pounds of red blood, which, being insufficient to support the vital functions, death rapidly ensues. But by taking away a portion of the black blood, and at the same time stimulating the respiratory organs to increased action, the equilibrium is soon restored, and a regular and healthy reaction is the consequence. If, on the other hand, we by excessive stimulation should succeed in bringing about a partial and imperfect reaction, and then open a vein, and the pulse should even begin to improve, it will soon sink again, and you are compelled to stop it before there is enough taken to produce any good effect; and if the immediate effect should be apparently good, the delusion is soon dispelled by the subsequent weakness. The reason of this is, that in taking even sixteen or twenty ounces of blood from one orifice, we take as much arterial blood as we do of venous blood, and the consequence is that the strength is reduced as much as the congestion is relieved, and there is nothing gained by the operation. The rules which govern me in taking blood in idiopathic fevers are—

1st. Never to bleed during the paroxysm for the purpose of reducing arterial excitement, or of cutting the fever short.

2d. If I bleed at all during the stage of excitement, it is in cases of *suppressed* excitement, or imperfect reaction; and it is for the purpose of developing the excitement; and consequently I administer stimulants at the same time.

3d. If I am at liberty to choose the time of bleeding, I prefer that period which immediately precedes the first paroxysm, and this having elapsed, the next is that which is intermediate between the first and second.

4th. In all febrile affections, bleed in the recumbent position, and from small rather than large orifices, so that the circulation shall be disturbed as little as possible.

5th. Cord all the limbs intended to be operated on, before opening an orifice in either, so as to give the black blood time to accumulate in the veins.

If these rules are complied with, four or five pounds of purely venous blood, in many instances, may be taken, and so far from weakening the patient, he is, on the contrary, immediately strengthened; for I have in more than one instance tried it on patients who were so weak, that they could not sit up without feeling sick and faint; but who were, after the operation, able to get up and walk to bed; for I generally, before bleeding, place the patient on a pallet on the floor, so as to have convenient access to all the limbs. In all cases where debility comes on suddenly, without being preceded by any exhausting evacuation, the debility is more apparent than real, and in those cases the pulse will be small, weak and compressible; but so far from this circumstance deterring me from using the lancet, I consider its necessity more urgent. For in those cases, if the blood runs at all, the pulse will become fuller and stronger; and if it does not run, it can do no harm to open the veins.

Another argument in favor of this mode of taking blood is, its causing *derivation* from parts actually inflamed, or congested, to other parts of the body. Whether this effect is, as Haller taught, inexplicable on merely mechanical principles; or whether, as Magendie asserts, it is merely the effect of the contractile power of the vessels, and the forced state of distension in which they exist during life, causing a flow to any point where an opening is made, it is quite certain that a movement in that direction is immediately perceived in all the small vessels which can be brought within the field of the microscope, on a puncture being made on any one of them; and in Haller's observations, it distinctly appeared that these movements often inverted the natural course of the circulation, and often extended to portions of blood which were stagnating in vessels, and caused globules to separate and become distinct, which had previously aggregated into irregular masses. This being so, it cannot be doubted that similar changes must be effected, in a greater or less degree, in the blood stagnating in inflamed or congested parts, when an exit is given to the blood from other parts of the circulating system, whether by local or general blood-letting. And it is on this principle that we can account for its influence in arresting internal hemorrhages, as well as by reducing the quantity of the circulating fluid, and thus relieving the local turgescence on which the hemorrhage primarily depends.

It is well known that these hemorrhages reduce the strength much more than the loss of double that quantity of blood would do, if taken from a vein. The reason of this is, that the blood flows directly from the arterial system, and hence the necessity of taking blood from the venous system, and thus restore the equilibrium between the two so as to enable the weakened organs to perform their functions, all of which depend upon the blood. For instance, the arterial blood penetrates every organ, supplying them with nourishment and strength to perform their functions, and the venous blood penetrates their cells, (at least two of the largest and most important ones, the liver and lungs) to be acted upon and converted, partly into red blood, and partly into secretions, to subserve certain purposes, and to be finally excreted from the body as effete matter. Is it not more consistent then with reason and common sense, to relieve the weakened organs of a part of their labor, by taking away a portion of venous blood, than by stimulating the organs to increased exertion to perform the same, or even a greater amount of labor, than they are in the habit of performing in health?

For the purpose of illustrating certain points in the foregoing remarks, I will introduce a few out of many cases which I could bring forward; and the first which I shall introduce will be to show that a larger quantity of blood can be taken in the way proposed, without producing syncope, than from one orifice. For this purpose I bled the same individual both ways at different times.

Mr. B. K. S., aged about 30 years, of sanguine temperament, and naturally strong constitution, but had just recovered from a spell of bilious fever, (in which he had been treated the ordinary way by another Physician; he had been up, however, for several days, and had been riding about attending to business, and came home on the 20th September, 1844, with a fever. I was immediately sent for, and on my arrival found him with a full, bounding pulse; a hot and dry skin; severe pain in the head; tongue slightly furred with a white coat, and some gastric irritation—presenting conditions necessary to admit of blood-letting, according to the commonly received doctrine. I therefore corded one arm and bled him from a large orifice, in a sitting position; not more than sixteen or eighteen ounces of blood had been taken when he complained of feeling sick and faint, and before I could get the bandage adjusted, he fainted and fell on the floor. After recovering he was put to bed, but remained quite weak and exhausted all night. I gave him a couple of blue pills that night, and the next day put him on quinine, and he had no more fever, and in a few days was able to attend to business.

On the 13th of October following, having been from home several days, he returned with a chill. He sent for me, and stated on my arrival that he had ridden sixteen miles with a chill, and was then lying with his feet to the fire, and complained of being chilly. There was, however, some reaction, and I proposed bleeding him, to which he assented. He again sat in a chair, and I corded both arms at the same time, and opened a vein in each, from which the blood flowed freely until I had taken a quart. I then bound them up, and he went to bed without any assistance, and said that he did not feel the least faint. I gave a couple of blue pills, to be taken at bedtime, and left him. The next morning I called over to see him, and he had ridden off a distance of eight miles ; his wife said that he expressed himself as feeling quite well, except a little weakness. I expected he would come home sick again, but I was mistaken ; he had no other relapse that season.

In pneumonia, bronchitis, and pleurisy, the superiority of this mode of abstracting blood is, perhaps, more peculiarly manifested than in any other class of diseases. For, in addition to its influence as a means of direct depletion, by taking away that portion of the blood which requires the functional agency of the affected organs, in order to fit it for nutrition, it thus, by diminishing the necessity for increased exertion, enables them to perform their functions on the remaining quantity of blood, so as to fit it for supplying the other vital organs with nourishment and strength to discharge their functions.

And in some cases of acute inflammation, affecting the substance of the lungs, even after hepatization has taken place, we may prevent death from ensuing by a judicious abstraction of blood, so as to enable the remaining portion of sound lungs to accommodate itself to the requirements of the system, or rather to enable the sanguiferous system to accommodate itself to the new state of things which has taken place in the lungs. That such a thing is possible, may be illustrated by many cases of slower progress, (chronic pneumonia, chronic pleurisy, and phthisis) in which a whole lung, or even the greater part of both lungs, may be rendered impervious to air without urgent dyspnœa, or death by asphyxia. In these cases we know that the whole quantity of blood in the body requiring to be arterialized, is very much diminished, and at the same time the distribution of blood in the lungs is gradually accommodated to the new state of things ; the vessels of the diseased part are gradually deserted by the blood and become atrophied, and finally close up and become mere tendinous bands ; while those of the sound part are filled and dilated to their utmost capacity ; as is clearly

shown by injections after death ; and it is partly because these changes cannot be rapidly effected, and partly also because a partial pneumonia is often attended by a more general bronchitis, that the respiration is so much, and often so fatally embarrassed, by the inflammatory condition even of one lung.

I fear that I would be too far trespassing upon the proper limits of an essay, as well as the patience of the reader, to introduce cases to illustrate the treatment in the first stage of pneumonia or phthisis ; I shall therefore simply give an outline of the general treatment when called to a case in the first stage.

By a single general bleeding, in the way recommended, say eight or ten ounces from each extremity, and four or five cups over the affected lung, generally the right one, followed by warm mustard or cayenne poultices over the whole chest, and carbonate of ammonia and hot teas administered to produce diaphoresis, and squills and blue mass to produce expectoration and restore the secretions, and at night opium or morphia to allay nervous irritability and cause sleep, the next morning a dose of castor oil and turpentine to operate on the bowels, and quinine through the day; and in nine cases out of ten, if the case is simple and uncomplicated, and you are called early enough, the case will require no other treatment than probably an additional dose or two of medicine, to keep the bowels open until the vitiated excretions are carried off, and a few doses of quinine.

This is the simplest form that we meet with of these affections in this country ; but they are sometimes complicated with abdominal, viceral derangement, most commonly of the liver and spleen, but sometimes of the stomach and bowels ; the latter by far the most dangerous ; these special local indications must be treated with the appropriate remedies, precisely as if we had the two diseases to contend with separately, with this difference ; that the treatment must be more prompt and energetic in the first stage, before the constitution sinks under the combined attack. But in most cases if the treatment is prompt in the early stage, these complications seldom develop themselves ; for, so far as my observation and experience extend, they are generally secondary, and in some instances brought on by improper treatment ; more especially the affection of the bowels, which is in nine cases out of ten brought on either by drastic purgatives or tartar emetic.

I will introduce one case of pneumonia, in which I bled the patient on the twelfth day, when there was no doubt on my mind that hepatization had taken place.

January 18th, 1846. Received a note from a neighboring Physician, requesting me to visit Mr. J. B. N., who had been sick eleven or twelve days, and as the Physician was compelled to leave him to go to the city, he wished me to take charge of the case. When I arrived, a little after dark, I found that the Doctor had left that morning; I was consequently left to my own judgment to ascertain the nature of the case and the treatment which had been pursued. Upon enquiry, I found that he had not been bled; that he had been purged excessively; that he had been taking antimony in nauseating doses; that he had occasionally had an opiate, and that he had been blistered. He was a man of about 35 years of age, of sanguine temperament, and strong constitution. His pulse was quick and tense; his tongue dry and covered with a brown coat; his skin was dry and harsh. His breathing was difficult and oppressed; dullness on percussion over the lower half of the right lung, *crepitant rale*, on auscultation, a depression over the right clavicle, and a dry cough. The discharges from his bowels were dark and watery, his urine high colored and scanty.

Treatment—I corded both arms, and opened the veins (and as it was inconvenient to take blood from his legs, I concluded to depend on what I could get from the arms), and let the blood run slowly, (which is very important where there is structural disease of the respiratory organ), and watched its effects. I soon found that the pulse was improving, becoming softer and fuller, the respiration became easier, and presently a slight perspiration was perceptible. I let it run until I had taken about twelve ounces from each arm. I then bound them up, and gave him carbonate of ammonia, and he was soon in a profuse perspiration. I next put a large blister over the right side of the chest, and gave him a pill, composed of blue mass, calomel and morphia, every four hours, until he had taken four, which were followed by a dose of oil and turpentine the next day. In the meantime he took the following mixture through the night as an expectorant and diapho retic :

℞		
	Carb. Ammonia	℥ ss
	Aqua Fonta	℥ij
	Syrup Scillæ	℥ i

First dissolve the ammonia in water, and then add the syrup, and stir it until effervescence ceases. Of this mixture give a table spoonful every two or three hours.

He slept well, which was the first time for several nights. He was

expectorating freely, and expressed himself as feeling much better. I dressed the blister, which had drawn well, and gave him the oil and turpentine, and remained with him until it had operated upon the bowels.

I left him at 11 o'clock so much improved, that I told his wife I would not return, and left medicine for him to take that night, with instructions to send up the next day, and let me know how he was doing.

January 20th.—Received a note from Mr. N.'s brother, stating that he was still improving, and the medicine had acted well. I sent medicine, and heard afterwards that he was getting well. But on the 10th of March I was sent for to see him again. His cough had never left him, and the expectoration had increased to such an extent that he thought he had consumption. When I arrived I found him sitting up, although quite weak and emaciated, and discharging large quantities of thick purulent matter ; it was first, he said, mixed with blood, but it had gradually changed and assumed its present appearance. He had, on percussion over the right lobe of the lungs, a hollow, cavernous sound, pectoriloquy or loud resonance of the voice, in that part of the chest. These signs left no doubt upon my mind that the indurated or hepatized portion of the lung had suppurated. My prognosis was therefore favorable. I assured him that he had not the consumption, but explained to him the true nature of the case. The only doubt was from the exhausting nature of the discharge, and the intervention of secondary or hectic fever, from the absorption of pus. He was at present clear of fever, and his strength was considerable. The indication was then to favor the discharge of the matter, support the strength, and promote cicatrization or adhesion. For this purpose I administered nauseating doses of sulp. of copper twice a day, and elixir vitriol as a tonic, and allowed a nourishing, generous diet. This, with an occasional dose of blue mass, was all that he took, and he was soon relieved of his cough and restored to apparent health. But he feels the effect of the attack to this day, and probably will to the day of his death. I saw him last winter, and he was pursuing quite a laborious occupation, although he told me that he could not straighten himself without feeling the bad effects of it.

I have been thus minute in the description of this case, because it is very rarely that cases recover after hepatization of the lungs, or even of a portion of one lobe takes place ; but this is the second case in my own experience in which the signs of hepatization and suppuration were too unequivocal to be mistaken ; and as it is generally considered

a hopeless case when such a state of things exist, I wish to show that there is still a reasonable ground not only for hope, but by a perseverance in the use of the proper means, we must succeed.

There is a remarkable circumstance connected with the pneumonias of this country; that is, that in nine-tenths of the cases the right lobe is the one most affected. This must be owing to its contiguity, and sympathy with the liver; and is the reverse of what obtains when the stomach or heart is affected; for Stokes in his lectures on this subject observes, "As far as my observation goes, I would say, that when disease of the gastro-intestinal surface is followed by an affection of the lung, the morbid action generally takes place in the left lung and in its lower lobe. There seems to be a greater sympathy between the left lung and the stomach, than the right, and you should therefore direct your attention particularly to the left side of the chest. It is a curious fact, that inflammation of the lower part of the left lobe is very frequently connected with pericarditis and gastritis. There seems to exist a very remarkable sympathy between organs on the same side of the body. This is a curious fact, and demands some other explanation besides that which was given by Mr. Hunter, who attributed it to contiguity of position."

I shall now proceed to consider the use of blood-letting in the well marked primary inflammatory affections, in which the lungs are not involved, causing what is called sympathetic or symptomatic fever. The principles which should govern us in these cases are different from those which should guide us in the use of the remedy in the idiopathic fevers; the rule in this case being to continue the loss of blood until either the pulse is reduced, or giddiness and faintness are felt, or the local symptoms are decidedly relieved. The quantity of blood which should be taken in such cases, then, can never be prescribed beforehand. We sometimes meet with cases, in which the symptoms of inflammation, in its early stage, both local and general, either continue more obstinately, or occur more frequently, than usual, and in these cases it is of much importance to be aware how far the remedy may be carried with good effect; and it may be confidently stated that no cases afford a more pleasing retrospect than those in which the cautious perseverance in the use of this "summum remedium in maximis morbis," has been ultimately rewarded with complete success. With this view I will introduce one more case.

Mason, a colored man, aged about 25, naturally of a strong constitution, but abused by irregular habits, complained to his master of pain in the back, and what he called the gravel—an inclination to make water

without the power. His master directed him to come to me, supposing that I was at home. But not finding me, the boy took a horse and started after me, and followed me to different places until he rode some ten or twelve miles without finding me. He then started back to town, but was compelled to stop on account of the pain he suffered. On my return I found him at a house near the road, in the most excrutiating agony. He could neither sit, lie nor stand, but was walking about in a half bent posture, moaning most piteously. Supposing it was the gravel, he desired me to draw off his water. I introduced the catheter, but found no water. It was a suppression and not a retention of urine. Upon examination, I found every evidence of acute renal inflammation. I immediately corded both arms, and from one I took a pint tin cupful, and from the other a pint bowlful; this produced no impression, either on the pulse, except to increase its volume and strength, or on the disease. I then put under a quart tin pan, and let both arms bleed into that, and took it full, without making any decided impression. Determined to make an impression before I stopped, I then made him go out of the house, and let both arms bleed on the ground until I had taken nearly a quart, as near as I could judge, before there was any effect produced; he then complained of feeling faint, and his pulse became softer and smaller; he however went back into the house without fainting. I then administered blue mass and opium, and put him into warm water, and gave him parsley tea, and before I left, which was some four hours from the time I first saw him, he urinated freely and expressed himself as being entirely relieved from pain. On the next day, late in the evening, he rode to town, and recovered without taking any more medicine. The appearance of the blood in this case was so remarkaable as to attract my special attention. That in the two first cups had the thickest buff coat that I had ever seen; it was at least three quarters of an inch thick, firm and transparent; in fact the whole clot appeared to be a mass of complete fibrine, and when turned out of the cups retained their shape like cakes of jelly.

In regard to the buffy coat in the blood, there are occasional anomalies which are not yet understood. I believe, however, that they depend on the condition of the blood at the outset of the disease. If the blood is well arterialized and healthy at the commencement of an acute inflammatory attack, the local symptoms will be more intense, and the general reaction will run high; and hence the quantity of coagulable lymph in the blood will be augmented. But when the blood is in a poor condition, as in many of the complex cases of autumnal and winter fevers, combined with local inflammation, instead of a thick, firm,

buffy coat, we have merely a deposit of flocculent albuminous shreds. This state of the blood is unfavorable to a speedy termination of the inflammation, at least in health, but it may terminate very speedily in death—for the only useful or reparatory purpose which inflammation serves in the animal economy is this, that it either throws out or circumscribes irritating substances, closes wounds, and repairs other breaches of structure, and in order to do this, it is necessary that the blood shall possess certain vital properties, to enable it to undergo the vital changes which are essential to fulfil these purposes. For instance, if the blood contains the necessary constituents, we see the lymph thrown out of vessels in a state of inflammation, gradually becoming concrete, and taking the form of flakes, and then of membrane, and finally form elongated cells, into which the blood of the neighboring texture is received, and in which it continues its motion ; we can only say that this lymph exhibits vital properties, similar to those by which the original organization of the germinal membrane of the ovum is determined. But it is important to observe, that this vital property resides in that effusion only, and if the blood does not possess the necessary constituents to produce that effusion, it can never take place. For notwithstanding some doubts which have been expressed upon the subject, it seems to be pretty well ascertained, that neither blood itself nor any other effusion from uninflamed vessels, nor purulent matter, nor the effusion from certain varieties of inflammation, are capable of thus becoming vascular and organized. But when inflammation supervenes, in plethoric habits, and in sanguine temperaments, we see coagulable lymph formed in such quantities that its deposition causes disorganization in the very textures that it was intended to repair. We then find that an aggregation takes place towards the centre of these effusions, and another vital change takes place, and a new secretion, or rather excretion, because destined to be discharged from the body, is established ; and pus or purulent matter is thrown out. This effect of inflammation, although it may be favored by exposure to air, is not dependent upon that circumstance, as was supposed by Mr. Hunter, for we know that it is formed in deep-seated abscesses, and in the vessels of an inflamed part; and according to Andral, in the coagula in the large vessels, and the heart, when there has been no abscess or suppurating surface in the body ; and when inflammation has existed for some time in any important organ in the body, globules of pus may be recognized in the blood.

I think then that we are warranted in the conclusion, that this process is intended by nature as a means of throwing off the coagulable

lymph which is no longer needed in the reparative process : for this change is necessary as a preliminary condition to all absorption of portions of the living body itself, whether in the living or the dead state.

The agents employed in this absortion are now generally admitted to be the veins, at least as much as the lymphatic vessels ; and according to the most recent anatomical researches, both of these sets of vessels are filled in the same way, viz., by lateral transudation ; and if the quantity is not excessive, it is thrown out without passing into the arterial system.

Now, the practical indications to be gathered from these facts and deductions are obvious and conclusive. In the first place, where the condition of the patient, when attacked with inflammatory affections, is of that robust and vigorous character which indicates a healthy condition of the blood, the indication would be to take blood in a full stream and in a large quantity from one orifice, so as to reduce the quantity of arterial blood, and at the same time arrest the tendency to an undue formation of coagulable lymph, and in doing this you will subdue arterial excitement. And with this indication in view, I have no doubt but that arteriotomy might sometimes be practised with advantage. But on the other hand, when the inflammatory reaction is slight, its local effects inconsiderable, and the fever attending it adynamic or typhoid, the indication evidently is to take blood from the venous system, and to promote, by stimulants and a nutritious diet, that condition of the blood which in the other case is in excess, i. e., the fibrinated condition.

This treatment is applicable to all the varieties and complications of inflammation, from the simplest erythema to the most complicated of the contagious exanthemata ; in all of which we have the varieties characterized by the terms *simple* and *malignant*.

My preseut limits will not pormit me to illustrate this with cases ; but I intend hereafter, if an opportunity is permitted, to furnish an article on the causes, remote and proximate, of idiopatic fevers, and give my plan of treatment with illustrative cases.

IV.—THE CHEMISTRY, PHYSICS AND VITALITY OF ORGANIC CELLS.

Introductory Lecture, delivered November 16, 1852, *in the Medical College.*

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GENTLEMEN—With feelings of pleasure, mingled with befitting sentiments of gratitude to the great Ruler of Nature, I tender you this, my introductory salutation. It is pleasant to behold before me, as I now do, the familiar faces of many who have unfalteringly accompanied me through former courses of lectures, on the science which it is my duty here to teach. It is also pleasant to behold the goodly recruit of new students in attendance, in whose society I confidently promise myself the same high tone of mental pleasure which I have enjoyed with their predecessors. And, that we yet live, in the enjoyment of mental and bodily health, permitting us still to canvass and admire the beauties and the wonders of nature, is sufficient to impress the reflecting mind with feelings of gratitude.

Custom, as you are aware, gives considerable latitude to the oral teacher, if he choose to avail himself of it, in his introductory discourse. Therefore, if in the succeeding hour, I shall at times introduce to your notice some matters not strictly chemical, you will please to consider such seeming digressions as fully sustained by precedent.

I shall attempt to present, for your consideration, some account of the state of our knowledge respecting *the physics, the chemistry, and the vitality of organic cells.*

General form and structure of Organic Cells. The simplest as well as the minutest forms invested with life, within our cognizance, are exceedingly minute microscopic cells. Hollow spheroid, rounded bag, or saccule, are expressions which more plainly and more definitely convey the meaning intended by the word cell. These saccules, which in general may be likened to a bladder without the neck, are, when living, filled with liquid and organized contents; the latter being sometimes, but not always, attached internally to the cell membrane, and consisting commonly of smaller saccules or vesicles, of a structure on a smaller scale, apparently similar to the containing cell. [Here several drawings were shown illustrative of the general structure of cells.] I am satisfied, from unnumbered careful observations directed to that point, that living cells are never seen to be truly simple; but always to contain within them more or less organized vesicular structure. The

cell which has ceased to be vitally active, like the rind of an orange, the shell of an egg, or like an empty bottle, may perhaps be entirely devoid of organized contents. But the true essential structure of living cells is no more to be learned from such, than the anatomy of the bowels from an eviscerated mummy.

Arrangement of Cell Contents. The organized cell contents, whether consisting of irresolvable points, granules, vesicles, nucleoli or nuclei, are observed in different cells, and at different times in the same cell, to present the following diversities of arrangement:

1. Aggregated together into an adherent granular or vesicular mass, and having an attachment, most commonly parietal, to the containing cell membrane.

2. Aggregated, mutually adherent, but free, having no attachment to the cell membrane.

3. Separate and free; the individual granules or nucleoli floating independently in the fluid contained in the cell.

In the progress of the performance of their different vital functions, the inducellular contents are seen to pass from one of these conditions to another. The vital force pertaining to the vesicles appears to be more exalted in the segregated or independent, and less in the aggregated or attached condition.

The foregoing statements respecting vesicles, etc., as the contents of cells, are mostly applicable to the cells themselves. They are sometimes aggregated and adherent, forming tissues; sometimes separated and free, as exemplified by blood corpuscles; and to the free cells, as blood, spermatozoa, etc., the most active and exalted condition of vitality pertains. In the aggregated state, they are frequently seen to have lost their rounded form; and by mutual pressure, to have become polyhedral.

Habitat. If you ask me to point you out actual organic cells, by way of illustration, I say to you, bring into the field of a good microscope any portion of the vast diversity of organized and living substances, abroad in nature, from the rank slime of the sickly marsh to the warm blood which courses in your own veins, and at every trial you will behold the cells of which I am speaking. In nearly all natural waters upon the face of the earth, minute forms of life abound, which in all respects observable, can be likened to mere cells, floating free and independent in their native element. With them, other cells, joined end to end, forming moniliform or jointed filaments, do also abound; as do likewise, others, associated together in a manner more

complicated. The air we breathe is charged with cells of wonderful minuteness, the germs of alleged fortuitous growths, the spores of cryptogamic vegetation, and the prolific source of pestilential maladies. The mould that delights in damp and darkness, the harbinger of dissolution and decay, may be seen to consist of extremely delicate cells, planted one upon another. The whole tissue of the *Fungi*, or mushrooms, is made up of organic cells, somewhat as walls are made up of bricks. Cells constitute the principal structure in all parts of all plants. In the living state they are most conveniently observable in the leaves, flowers, fruit and cambium. Cells also constitute the principal structure in the early embryonic condition of animals; and in all stages they can be observed in most of the animal tissues; best perhaps in the mucous, epidermic, glandular and cartilaginous structures.

Size. In general, organic cells are individually truly microscopic objects, being by far too minute for unassisted vision. Larger cells are seen in animal, than in vegetable tissues. In every species of organism, however, cells or utricles do abundantly occur, of a minuteness of size beyond the power of our microscopes clearly to define. They are seen satisfactorily to be as small as 1-100,000 of an inch in diameter; and on the other hand, in vegetable structure, as large as 1-30 of an inch,* the average of vegetable cells being near 1-500 of an inch in diameter.

Human blood corpuscles, which are vital cells, are less in diameter than 1-3000 of an inch. Animal ova are perfectly well characterized cells, and they afford us, as in the eggs of birds, perhaps the largest known samples of that structure.

Chemical Composition, in connection with Structure. In respect to the chemical composition of living cells, it may be safely said that it is complex; oxygen, hydrogen, carbon and nitrogen, being always present, and in such high proportions as to be not expressible with certainty by chemical formulæ. Phosphorus, sulphur, iron, manganese, calcium, sodium, magnesium, etc., in essential proportions, are, in different classes of cells, often met with. I think that protoplasmic or vitally active cells consist mainly of those complex nitrogenous substances denominated protein compounds. The number of the proteine and proteinoid nitrogenous substances thus naturally occurring must be very great, although very few have as yet been chemically defined. [Here diagrams were shown, setting forth the chemical composition of protein, albumen, fibrin, casein, glutin, binoxide of proteine, tritoxide of

* Gray's Bot. Text Book, p. 26.

proteine, gelatinous substances, coloring matter of blood, and chlorophyle.]

The primordial living cell, or vital cell lining, sometimes called the protoplasm, whether examined in animal or vegetable tissues, manifests in all respects nearly the same essential characteristics; possessing, indeed, all the wonderful prerogatives of animal life. This primordial living cell usually becomes invested, at an early stage, with a membranous covering, of a different nature and composition in different instances; a structure which, like the walls of the contained living cell, is permeable to liquid; permitting of the occurrence of the physical phenomena of endosmose and exosmose; but which, by itself, does, not seem to possess vitality. This secondary non-vital cell, most frequently endures, long after its vital contents have become inert, suffered change or dissolution, or perhaps entirely disappeared by absorption. Now the chemical composition of the non-vital, comparatively permanent cells, is exceedingly various, and often comparatively simple. Of such nature is cellulose, and starch; the characteristic components of most vegetable tissues. [The formula

C12	H 9	O 9 +	water, for cellulose; and
C12	H10	O10	for starch,
C12	H 8	O10	for pectin, were explained.]

Of such nature are many epidermic, epithelial and cartilaginous cells in the animal structure.

Functions of Cells. The functions performed by organic cells may be regarded as threefold—purely physical, chemical and vital. Their most important physical function depends upon their permeability to liquids. No sensible pores exist in the cell membrane; yet a ready transit is afforded to water and watery solutions, in accordance with the laws of endosmosis. Whatever thus traverses a cell membrane, must apparently be in a complete state of solution, and devoid of all organization. The blastema, in what condition soever it may be presented at the exterior surface of the cell, must become (if not already in that condition) apparently deorganized and perfectly fluid.* The

* We cannot, in the present state of our knowledge, positively affirm or deny, that invisible organized particles find transit through organic membranes. For aught we know, the intermolecular spaces occurring in the ultimate structure of the walls of cells and vesicles, may be propprtionate in width somewhat, to the size of the cell or vesicle, or to its stage of development, from the minutest transcendental germ to the adult cell. If so, we might expect to find in the more minute corpuscles a more intense vital force, and a greater power of resisting chemical agents; precisely what we observe in the action of vinegar, alkalies, etc., on blood. The intensity of the endosmotic power would be found to vary inversely, while the facility of endosmotic transmission would vary directly as the size of the corpuscle. Admitting the hypo-

chemical changes and transformation attendant upon cell life, are numerous, varied, complex, and highly important. Besides the principal ultimate elements, which I have already named, as contributing to the composition of cells, many others of the so called inorganic elements take part in their chemical operations. In fact an organic cell may be appropriately regarded as a skilfully constructed and most efficient chemical apparatus; in which not merely the ordinary forces of brute matter manifest themselves; but other more exalted forces, flowing apparently from vitality, and unknown in inorganic chemistry, are brought efficiently into play, causing the union of elements in an extraordinary, and frequently complex manner, giving rise to the so called organic compounds, which are beyond the reach of human art to imitate. These organic compounds are sometimes found as a part of the cell contents, sometimes intercellularly or between the cells, and sometimes penetrating and even replacing the cell wall. In such apparatus, and by such means, all the material transformations of organic life, so wonderful to contemplate, are said to be effected.

The vital functions of cells, most important to be mentioned at this time, pertain to their development, growth and decay. The vitally active adult cells of an organism are, for many reasons, presumed to be very short lived—a few days or weeks at most, unless prolonged by dormancy; the vital functions of an animal or plant being performed successively by adequate recruits of newly developed cells, the progeny of the former. The old and useless protoplasmic cell membrane suffers disintegration, dissolution and removal; its available material is contributed for the nutrition of its successors, and its effete matter returned to the earth and atmosphere, whence it was originally derived—there to be broken up into its primordial elements,—to be purified indeed by complete decay.

Origin and Development—Limits of Vision. Notwithstanding the prevalence of a contrary opinion, with some writers of note, for myself, I am satisfied that vital cells never originate in any other way than as the progeny of pre-existiug organisms. The nucleoli, granules, or utricles, from which, as germs, they are primarily developed, no doubt from their minuteness, often far transcend our power of direct observation. Dr. W. J. Burnett of Boston, who has made many valuable mi-

thesis, which is not improbable, it would then be possible to understand how exceedingly minute organic germs could find transit through an organic membrane, floating through the intermolecular spaces, in an endosmotic liquid current. I am inclined to believe such does occur; for I have often seen diseased animal cells, seemingly entire, yet containing inducellular growths, apparently abnormal or parasitic. Malarious organized poisons may thus penetrate, and by their parasitic development, vitiate the corpuscles of human blood.

croscopic observations upon embryology, seems to think (Proceed. Am. Asso., V. 131, in a note), that the smallest possible utricles are about the 1-200,000 of an inch in diameter. Other writers have assigned even a larger limit. But I can perceive nothing to sustain their views, as indicating the limits assigned. Yet, considering that there must be a limit in size to the chemical elements of matter, it would follow that there must also be a limit, far larger of course, to the size of the smallest possible organic and vital particles. It may be useful, in connection with this subject, to determine, if possible, the limits to human vision. According to Ehrenberg (Taylor's Sci. Mem. I. 577), the unassisted eye can, as a limit, clearly perceive a square or round substance, white upon a surface of black, or black upon white, about 1-40 of a Paris line in diameter. This is equal to near .00225 English inch ; and taking the distance of clearest vision at 10 inches, the angular diameter of the minimum body seen would be 45". As to the practical limits of microscopic vision, considerable diversity of opinion prevails. The celebrated Robert Brown assumed, in 1828 (Ehr. in Taylor's Sci. Mem. I. 570), that a body less than 1-30,000 of an inch could not be seen. With the best instruments of the present day, we can look much deeper into microscopic nature. I am satisfied we can clearly define an object, whose diameter is somewhat less than 1-100,000 of an inch, and can perceive objects still more minute. With a magnifying power of 1000 diameters, which is perhaps as great as can be advantageously used in such researches, the body 1-100,000 of an inch in diameter, would be seen to subtend an angle of 3', which is four times as great an angle as that concerned in the limit of vision before mentioned for the unassisted eye—demonstrating that the quality of the optical arrangements in the best microscopes is greatly inferior to that of the human eye.

Now I have determined, indirectly, of course, that the space occupied by a single particle of water, the smallest possible, [H O] approaches and cannot be less than .000000002762 inch in diameter, say in round numbers 1-400,000,000 of an inch in diameter. (Constitution of matter, ¶ 76. p. 17.) Suppose, for the sake of theoretical comparison, that the smallest vital corpuscle were one million times the size, or in other words, one hundred times the diameter, of such a particle of water. Our present microscopes of 1000 diameters, are limited to the clear definition, say of bodies 1-100,000 of an inch in diameter ; now, if a microscope could be made, having the same angular definition, 3', and magnifying 40,000 diameters, such minimum vital corpuscle could be made cognizable to visual observation. But, it is useless to think

of ever attaining a tithe, or even a twentieth part of such excellence in the microscope. We may therefore never hope to behold an ultimate vital corpuscle, or a truly single or simple living cell.

As to the genesis or multiplication of cells, three methods, alleged by some to be essentially different, have been witnessed by microscopic observers. These are, 1, increase by fission or division, merismatic multiplication or fissiparous generation ;—2, internal development, or endogenous generation ;—3, external development, or exogenous generation. The fissiparous multiplication can be satisfactorily observed in microscopic algæ. From the vital or protoplasmic lining of the cell cavity, an annular membrane starts, and growing centripetally, finally meets and closes in the centre, thus making two cells out of one. The yolk of an egg undergoes the process of segmentation, on essentially the same principles. Dr. Burnett reports to have witnessed the same mode of increase in epithelial and pus cells from the animal system.

The endogenous method of multiplication is that most frequently observed. The vesicles contained in the cell become enlarged by growth, and perhaps multiplied by fission, until at length the parent cell is ruptured, and finally disintegrated and absorbed. The vesicles thus made free, assume in turn all the cell characters, and finally disappear, after giving birth to a like progeny. At the first view, it might appear that an unlimited number of generations of cells were wrapped within each other, and that the successive crops of cells were produced by the mere unfolding, or rather successive growth and enlargement of the different contained orders of nuclei. Such, to an unknown extent doubtless, does actually occur. But upon second thought, it must be apparent, that as the germinal nuclei necessarily have a minimum limit of size, unknown though it be, only a limited number of generations can at any one time actually constitute the inducellular contents. Recurring to what we know of fissiparous multiplication, it becomes probable that the primordial cell germs are produced and increased in number, by the process of fission or division. [Drawings were shown, exhibiting the division of a cell of Zygnema by fission ; and others illustrating the endogenous development, as observed in the embryo tadpole.]

The exogenous development of cells is, in my opinion, more apparent than real. A vesicle appears to protrude from the walls of a cell externally, and increasing in size, becomes at length as large as the cell from which it springs, and ready in turn to contribute an offset. Should these successive formations remain attached to each other, a

jointed or beaded filament, simple or branching, as the case may be, is the result. Now, in these cases a close scrutiny leaves in my mind little or no doubt that the developing germ really originates within the cell, and is therefore of endogenous origin. In its development, it pushes itself through and beyond the cell wall, doubtless carrying before it a layer of the protoplasm, and hence its apparently exogenous character. The so called exogenous mode of development may be satisfactorily seen in the *Torula*, or yeast plant, and in many of the microscopic algæ and fungi. [Drawings of *Torula* were shown and explained.]

For most of our knowledge respecting the structure and functions of vegetable cells, we are indebted to vegetable physiologists, and especially to Prof. M. J. Schleiden, author of "Phytogenesis," (Taylor Sci. Mem. II. 281 et seq.) and to Prof. Hugo Mohl. (Taylor Sci. Mem. IV. p. 91 et seq.) Mohl was the first to observe and duly appreciate in vegetable structure, the important functions, the high organization, and the fugacious nature of the active vital cell membrane, denominated by him the protoplasm, or primordial utricle. In 1839 Dr. Schwann published an able memoir, in which he showed that the doctrines of Schleiden, respecting vegetable cells, were in many respects applicable to animal tissues. Among many important and well sustained facts, the memoir of Schwann contains other matters, which later observations, with better instruments than existed when he wrote, have shown to be untenable. His grand hypothesis of the origin of organic germs and cells, has, in my opinion, no foundation to rest upon. He sees an analogy between inorganic crystals and vital corpuscles ; the materials of both, he is inclined to think, being deposited from a state of solution, in obedience to the laws of brute matter. But while true crystals are impermeable to the mother liquor, and can therefore increase in size superficially only, and therefore have facets and angles ; the vital crystals remain permeable to the fluid in which they are formed, and can therefore increase in size, not only by new external layers, but by internal and interstitial deposition. Hence the rounded form. Hence the more or less hollow cavity. For my part, I have no objection to the physical bearing of all these considerations ;—but considering the specific difference, the vast diversity, and the wonderful functions of cells, I feel impelled to acknowledge the influence of what we call vitality, as something more refined and exalted than what we mean by chemical force ; and so far from perceiving similarity or analogy between the two cases, it appears to me that there are scarcely points of even remote resemblance.

Dr. W. J. Burnett of Boston has accomplished much, in respect to the more recondite histology of animal tissues. He thinks the ultimate structure of membranes, filaments, fibres, cells, nuclei, etc., consists of very minute hollow vesicles, which he calls primordial utricles. Mohl has pre-occupied that expression with a different meaning. In epithelial and pus cells of animals, he asserts that he has observed the following phenomena pertaining to their development. (Proc. Am. Soc. III. 261.)

1. A dark point [nucleus] appears in the organizable fluid.
2. This dark point enlarges, becomes hollow, and filled with a clear liquor.
3. The contained clear liquor becomes cloudy and granular.
4. Dark points appear, [new nucleoli] which develop like 2 and 3, attended perhaps with the disappearance of the parent cell.

Dr. Leidy of Philadelphia has also contributed to the advancement of histology [the science of tissues], and from what I have seen, (Dr. Waring's paper, Am. Jour. Med Sci. Oct. 1852, p. 326), I infer he follows pretty closely the views of Schwann.

Prof. Ch. Girard, of the Smithsonian Institution, has made some very interesting and instructive observations on the development of the germs of Planariæ. (Proc. Am. Asso. III. 398.)

Acherson's Experiments. Dr. Acherson, and others since, have observed that an emulsion of oil and albumen results in the formation of cells, simulating in appearance those of vital production. Considerable weight has been given to these observations, by many writers, as elucidating the theory of the genesis of organic cells. It is not improbable, that the mutual presence of albumen and oleaginous substances in the animal system, may constitute a condition favorable to the vital development of cells. But we have no reason to suppose that vitality could attach to a globule of oil, accidentally, as it were, surrounded by an envelope of chemical albumen. It is even possible to produce a pseudo cell of similar form, by the contiguity of purely inorganic chemical materials. A precipitate simulating an organic membrane ensues on mingling a solution of the protosulphate of iron with a solution of potassa ; and similar results occur with many other solutions (Mulder. Chem. Physiol. Fremberg's trans, p. 374).

Contractile and Sentient Tissues. Leaving out of consideration Mohl's primordial utricle, or vital cell lining, it is doubtful whether a simple cell membrane has ever been seen to manifest the power of spontaneous movement ; or to possess by itself the vital qualities of

irritability and contractility. There is a structure largely developed in animals, and not absent in plants, to which these mysterious attributes pertain. Of such nature is muscular substance, and the vibratile ciliæ, the latter being common to the animal and vegetable kingdoms. Schwann thinks this structure is of cell origin. Dr. Burnett says that it probably consists of wonderfully minute utricles or vesicles. My own opinion is, that the living contractile and sentient tissues, in whatever form they may appear, are probably prolongations, offsets or modifications of the substance of the primordial utricle, as defined by Mohl. This could not be effected in accordance with the current cell theory; and therefore it appears to me that the genesis and primitive histology of the contractile and sentient substances, are, as yet, almost entirely unknown. In the embryo tadpole, cells appear, actively manifesting the power to move, by means of vibrating ciliæ. [A drawing of such a cell was shown and explained.]

The minutest cell spores of fresh water algæ are similarly equipped with the means of locomotion, which they actively use, as soon as they are set at liberty. The spermatozoa of animals, smaller than blood cells in size, swim actively about, by means of an attenuated tail. Within the cells of the Desmidiæ, of algæ, of the higher plants, especially in the petals of flowers, in mucous cells, and in embryonic blood cells, minute corpuscles are sometimes seen, freely and briskly moving about.

It was observed by Robert Brown, in 1828, and has since been confirmed by almost every microscopist, that very minute particles, as of gamboge, iodine, albuminate of lead, etc., which do not possess vitality, sometimes manifest a vibratory, irregular movement. The cause of these, Brownian movements, so called, is rather shrouded in obscurity; but it may probably be referred, in different instances, to solution, dissolution, deposition, chemical change, or to permeation—mere molecular changes all. But the inducellular movements I have cited are probably not all referable to the causes of the Brownian movement. It is probable that many of these movements are produced by vibratile ciliæ, too minute to be made apparent to vision.

Now, the most patient scrutiny has failed to make out a normal cell origin for the moving ciliæ; and the same may be asserted of all the contractile and sentient tissues known to us. [Drawings were explained, of Zoospores of Oscillaria Aureliana, *Riddell.* (Euglenia.) Human spermatozoa, Gamboge particles, and petal cells of Dracopis amplexicaulis, *Cass.*]

Thus the cell theories of Schleiden and Schwann must be considered as falling short of what has been claimed for them, inasmuch as they give us no light respecting the histological origin of the contractile and sentient tissues.

Blood-vessels. The development of blood-vessels presents us with another signal failure of the cell theory. The stellate cells of Schwann, which he supposed to become transformed into capillary vessels, are merely intercellular spaces; and the blood, impelled into these intercellular spaces,deposits the plastic material around its path,of which the blood vessel is thus formed. [Enlarged copies of Plates XV. and XVI. New Orleans Med. and Surg. Jour. Vol. IX. p. 174, for August, 1852, were exhibited and explained, shewing the way in which capillary blood vessels originate in the tail of a tadpole.]

Peculiarities of Red Blood Cells. The red blood corpuscles of the vertebrata, are perfectly well characterized composite cells. They possess a high degree of vitality, and having, as a principal function, to transport oxygen (probably in a loose state of combination) from the atmosphere, to all parts of the organism to which they belong, there is prominently developed within them, a curious, uniformly vesiculated tissue, not obvious in other cells. The central part of the corpuscle, in human blood, for example, has the ordinary nucleolar structure common to other animal cells. But the thickened enveloping membrane, or its thickened protoplasmic lining, abounds with myriads of minute vesicles, of nearly uniform size, and less than 1-100,000 of an inch in diameter. In blood corpuscles of the Amphiuma tridactylum, *Cuv.*, which are the largest known, and which possess analogous structure, this vesiculated mantle can be clearly made out. I have denominated this structure the *pallium vesiculatum.* It doubtless acts as the carrier of oxygen. (New Orleans Med. and Surg. Jour. Vol. IX. p. 119.)

Summary. And now, gentlemen, by way of travelling towards a conclusion to this discourse, I will state to you, that in my opinion, the several propositions which I shall now present you, while they embody a partial summary of the present state of our knowledge respecting organic cells, at the same time are as near the truth as it is possible to arrive, without further explorations into microscopic nature.

1. That organic cells are composite organisms, the product of vital development.

2. That each living cell has a vitality independent of others; and that the elementary, individual, vital *ens*, if it has a concrete existence, can only exist in the transcendantly minute, simple cell germs.

3. That cells are usually produced by development from cell germs, the contents of preceding cells.

4. That visible cells are sometimes multiplied by the process of fission or segmentation.

5. That the unseen, primitive, simple cell germs, are probably always multiplied by the process of fission or segmentation.

6. That as cells, even while they continue vital, are in one sense chemical apparatus, and may appropriate chemical materials, and by chemical transformations, modified or not, by vitality, produce chemical results, in the form of new compounds, the study of their structure and functions is indispensable to the student who would properly understand organic chemistry and physiology.

7. That since there is diversity of chemical composition, not only in the more simple secondary, but even in the more chemically complex primary or protoplasmic cell membranes ; and since material difference of composition insures difference in function, being attended by change in the elective powers exerted over the materials brought in contact with the membrane, controlling the quality of the materials permitted to permeate by endosmotic action, and therefore controlling chemical and vital products of cell action ; we have a clue to the explanation of many important vital processes, such as secretion, excretion, and the accumulation of special cell contents, as of starch, sugar, fatty substances and morbid products.

8. That, although we have not mastered, and may never fully master, vital chemistry, yet by experience we have learned, that as the composition of the nutrient fluid in contact with cells is made to vary, a corresponding variation takes place in the chemico-vital products of cell action. On this consideration depends, in a good degree, the theory of the operations of medicines upon the animal economy. These views, for instance, are very well understood and usefully acted upon by the medical profession, in respect to the different conditions of the urine, which can be modified or changed with promptitude and certainty, by the internal administration of remedial agents, on chemical principles.

9. That, determining by chemical analysis, the nature of the so called inorganic elements, always present, some predominating here, some there, in the cells of the different tissues, we are at once put in possession of most valuable knowledge, by the use of which we may favor and facilitate the healthy growth of new cells in particular tissues. In exemplification, it has been determined that phosphate of lime occurs in the living cells of man ; and the experience of Prof. Stone and

others seems to show, that the administration of phosphate of lime tends to prevent that cell degeneration, which constitutes phthisis, by aiding to reinstate a healthy cell formation.

Conclusion. In conclusion, I will offer you a few remarks, relevant somewhat to the main subject of my discourse,—upon organic chemistry.

Organic chemistry has become a vast and unwieldy science. Nine tenths of it at this time, at least, concern those factitious compounds, which never occur in nature, but which are producible by the chemical art, operating upon organic materials. I would not be thought to underrate its value, and trust that I do not, when I assert, that the nine tenths alluded to, contribute much less to the elucidation of physiology than to increase the general fund of science. Still, organic chemistry has rendered incalculable aid to physiology. It could not, indeed, be very widely amiss, to regard physiology as a higher department of organic chemistry. In some of its chapters it might, properly enough, be called transcendental chemistry; just as the calculus bordering upon metaphysics is called transcendental mathematics.

To pursue vital chemistry with promise of success, the dissecting instruments, the microscope, and the chemical reagents, must all be at hand, ready for convenient use. Preliminarily, the student must be conversant with the elements of chemistry and the elements of physiology. With all the advantages that can be commanded, it will still frequently happen that the clouds of uncertainty will pertinaciously envelop the subject of investigation. Nevertheless, much useful and practical knowledge will thus be attained. We may learn, for instance, that hydrochloric acid communicates a purple color to albumen and other protein compounds, without being able to assign the reason why; and that cellulose may be distinguished by the use of weak sulphuric acid and tincture of iodine. That iodine colors starch blue, and protein compounds brown; although the rationale of these changes may elude our enquiry. Single observations may appear to have but little value; but accumulated and varied observations will indicate the abode of truth. Prosecuting, with zeal and perseverance, our explorations near the present boundaries of our knowledge, little by little the dark mists which hem in our view will retire before us; more and still more distinct and admirable will appear the true lineaments of nature. Thus shall the sun of science, ascending towards the zenith, shed abroad a more glorious effulgence, and contribute its sublime rays to the features of the still widening area of human knowledge.

V.—SINGULAR CASE OF NÆVUS MATERNUS.

BY R. RILEY, M. D., MISSISSIPPI.

A. Hester, M. D.

Dear Sir—The object of a public journalist should be two-fold, viz., to propagate *truth* and expose *error*; and contributors to science should be actuated by the same noble purpose. Starting, then, with this broad hypothesis, you might readily be led to suppose that in venturing to claim a space in your excellent Journal, I had some important *truth* to communicate, or a great *error* to expose. But such is not the case. My purpose is simply to describe a very interesting phenomenon that came under my observation recently, in the person of an infant six months old. At birth it was disfigured by a mark—*nœvus maternus*—covering the whole of the left side of its face; from above the left supercilium, involving the whole of the eyes to the inner canthus; from which point it passes diagonally across the nose, to the right *ala*, embracing the septum and the whole of the left *ala*, thence downwards involving the left two thirds of the *labii superiores*, the angle of the mouth of that side, and the chin as far as the symphysis, whence it turned diagonally backwards and downwards on the side of the neck to within an inch of the clavicle. A small spot, of the size of a half dime, is perceptible upon the right eyebrow, but not so distinct as upon the left. The general appearance of the mark is that of an extensive bruise, of a deep scarlet color, with the appearance of extravnsated blood, and considerable swelling; several points being raised above the general level of the surface, particularly the eyebrow, upper lip and nose. Innumerable capillary veins, greatly enlarged, are seen passing in a tortuous manner throughout its whole extent.

It is needless to say that the disfiguration was awful; but otherwise the patient is a remarkably large, fine looking child. Parts of the mark, particularly upon the lip and throat, were early disposed to ulcerate, and about the third week of its existence the little patient had a severe attack of stomatitis, which yielded readily to medical treatment, as did the ulcers above mentioned; when a sympathetic affection of the throat supervened, which continued as long as the ulcers remained healed, but subsided as soon as they were permitted to open again, which happened more than once. This state of things continued, with but little change until about the middle of September, when the little patient had an attack of intermittent fever, and in a short time the mark, throughout its whole extent, became highly inflamed, ulcerated, and about the fourth day of the attack, became the seat of passive hemorrhage, exuding a sero-sanguineous fluid, of an exceedingly acrid nature, which excoria-

ted the surrounding parts, when permitted to come in contact with them.

About the tenth day a dark slough formed, which came away on the sixteenth day, about which time it was seized with convulsions, (having six in one day, the last of which was as severe as I ever witnessed, affecting principally the right side ; the contractions of the muscles being so great as to produce partial luxation of the head of the Radius) which resulted in paralysis of the right side—complete hemiphlegia. The sloughing process still goes on; the structure of the supercilium is completely destroyed, as is the left ala and septum of the nose ; the bone of the supra orbital ridge was left exposed to view when the slough was dislodged.

The present character of the ulcer is evidently malignant ; not spreading laterally, but eating, excavating the deeper seated structures. Its limit is well defined, with a hard elevated edge, of a pearly grey color. It still discharges a thin ichorous fluid, exceedingly fœtid. The strength of the little patient is rapidly declining. Diarrhœa has supervened, and the countenance has assumed that wan and sallow appearance so characteristic of cancer.

I would remark, in conclusion, that the parents of the child are remarkably healthy—have several other children, all of whom are blooming and healthy.

P. S. The child has died since writing the above.

October 25th, 1852.

VI.—REPORT OF THE COMMITTEE ON MIDWIFERY AND THE DISEASES OF WOMEN AND CHILDREN.

BY WM. P. HORT, M. D. CHAIRMAN.

[The following paper was written by the late lamented Dr. W. P. Hort, and read by Dr. Browning to the *Louisiana State Medical Society*, at one of its sittings during last winter ; and as the last effort of his singularly exact and logical mind, we feel it our duty to lay the Report before the Profession. As we cannot make room for the entire article in this number, we shall continue and conclude it in our March issue. *Ed.*]

Of the molecular matter of which this earth is composed, one portion is inert, until set in motion by some external agent ; the other is endowed with what is denominated *vitality*. The physical organization of the former has been, and still is determined by chemical action, by electrical influences, by earthquakes and volcanic eruptions, and by the abrasion and transfer of rocks and soils by heavy rains, and the sudden melting of snow on the plains or in the mountains.

The latter differs essentially and radically from the foregoing, inasmuch as matter endowed with vitality possesses within itself the power of motion, and above all, the capacity of propagating or reproducing its like; besides presenting a variety of wonderful phenomena, illustrative and characteristic of *life*, to our clear conviction and full satisfaction. We at once recognize vitality by these phenomena; yet, however we may be disposed to theorise on the subject, we really are as incapable of comprehending what life is in the *abstract*, as we are of grasping the overwhelming idea of Eternity, or that of illimitable and boundless space.

Having drawn as briefly as possible the distinction between mere molecular matter and the living entity, whether it be a plant or an animal, we must now confine ourselves to one peculiar and characteristic phenomenon—we mean the internal power of generation and propagation.

Amongst plants, there are several ways of propagation—by the seed, by cuttings, and by grafting.* And in the animal creation, we may notice two general modes—the *viviparous* and the *oviparous*. As a general rule, there must be actual contact between the male and the female, but there are striking exceptions—as in the case of the frog and other reptiles, where the eggs are fecundated by the male, after their expulsion from the body of the female. Another exception is seen in fishes; most of them lay eggs, which are matured and hatched out of their body; others are cartilaginous and viviparous; while according to Home, hermaphrodites may be found amongst fishes. He affirms that in the lamprey there is both spawn and milt.

In the minute infusoria, the subjects of microscopic observation, the mode of fecundation is unknown, but the fact of propagation can be demonstrated. Some of the globular monads, and of the vorticellæ, increase by spontaneous and equal division. We first observe an equatorial band encircling the lining globule, which is drawn more and more tight, until a complete separation is effected, until each portion becomes an independent living entity, which, in its turn, is like the parent, bisected. And the mysterious propagation goes on indefinitely. The Monasuva consists of a cluster of four or five globules or corpuscles, by the spontaneous separation of which the species is propagated. The Volvox Globator consists of a spherical membraneous sac, filled with liquid, in which float many diminutive globules like itself—even to the

* In the former case there are male and female organs, generally on different plants; yet sometimes both are found in the same plant.

fifth generation has been seen, by accurate and diligent observers, in the same individual animalcule. It is to this species of the infusoria that the living entities in the blood bear so close an affinity. The resemblance is perfect, except that within the blood corpuscles not more than one generation has as yet been discovered. From thirty to fifty have been seen in the parent sac. The mode of propagation is the same in both cases ; in due time one or more of the contained monads, or minute corpuscles, or globules, will produce great tension on the side of the parent sac, until at length it bursts through the obstruction into independent existences.

Ehrenberg informs us that he has seen the *ova* of animalcules excluded, in the form of minute globules, the twelfth thousandth part of an inch in diameter, and that when they had grown to the size of the seventeenth hundredth part of an inch, or seven times their original diameter, they were distinctly seen to excite currents and swallow food. He also claims to have detected the offspring of the Rotifera Vulgaris, perfectly formed, moving within the parent animalcule, and finally excluded in a living state, establishing the fact that the former were oviperous and the latter viviparous. He says nothing of the mode of development of the living entity from ova in the first instance. He leaves that to nature, and probably he is right.

We would remark that this Rotifera Vulgaris, in its mode of propagation, presents the closest analogy to the living entities in the blood. There are other species of the infusoria which resemble the Hydra, or *connecting link* between the animal and vegetable creation. They are called gemmiparous, because they produce granules, (like the budding of a plant) which shoot forth from the side of the parent, and are soon provided with cilia, enabling them, when separated, to provide for their own subsistence.

This introduction may probably be deemed irrelevant ; but we have alluded to the different modes of propagation amongst plants, fishes, reptiles and minute microscopic entities, because we deem the subject of *internal* propagation, with all its varieties, as to the peculiarity and principle, as one and inseparable from the most minute of God's creatures, to the largest, or the most perfect in point of organization and intellectual endowment.

It is unnecessary to advert to those instances of fecundation and propagation amongst animals, with which every observing man must be familiar, until we come to speak of man, the highest of the order MAMMALIA. Of the inferior animals, NATURE is the universal and almost

unerring midwife. But man, who stands at the head of created, living entities on this earth, too often requires the assistance of Art, to carry on the propagation of the species.

MIDWIFERY has been well defined to be the art of aiding and facilitating the birth of a child, and its appurtenances, and of providing for the safety of the mother, during and after her delivery. It is derived from two German words, *Mit*, with, and *Weib*, wife. It requires a thorough knowledge of anatomical, physiological and pathological science. We have very little information on this subject, when we go back to remote ages, but it is probable that it has been practised from the earliest ages of mankind, at least where there was any semblance of civilization. It was doubtless at first very defective, and only resorted to on the most urgent occasions. We know that amongst the most cultivated nations of antiquity this art was very imperfectly understood.

For this, however, a sufficient reason may be assigned. It is admitted by all well educated men that the dawn of civilization took place somewhere in the East, where the soil is fertile and the climate luxurious. Now, it is well known that women suffer less when pregnant, and give birth to their children with far greater facility in a warm and genial climate, than in cold northern regions. Hence the reason for the art not existing—it was not cultivated.

The first allusion to any difficulty in propagating the human species, is found in the third chapter of Genesis, at the 16th verse. Deity is there represented as speaking to Eve, on account of disobedience to the divine law.

"Unto the woman he said, I will greatly multiply thy sorrow and thy conception—in sorrow thou shalt bring forth children."

In the 35th chapter of Genesis it is said, that Rachel, on the road between Bethel and Eprath travailed and had hard labor, and that the midwife said unto her, Fear not, thou shalt have this son also. She died, however, and this is the first recorded instance of a woman dying in parturition.

It is to be inferred that the Egyptians had no regular midwives, since when Pharaoh wished to destroy the male children of the Hebrews, he issued his orders accordingly to the Jewish midwives. It appears that there were but two of them, whence we conclude that there was seldom necessity for their assistance. They refused to comply with the cruel and inhuman command of the Egyptian monarch, and gave

as an excuse, that the Hebrew women were not as the Egyptian women, who were more lively, and were delivered before the midwives could be with them. This curious statement is in the first chapter of Exodus. It is necessary to remark that this may have been a pretext of the Hebrew midwives to save the male children of their people ; and it might also be *possible* that the labor of the Egyptian women was somewhat more tedious than that of the others, although not more dangerous. The Scripture history would induce us to incline to the former opinion. The influence of climate on parturition is well known to be very great. We are not aware that there was any material difference betwen the climate of Palestine and that of Egypt ; and both nations, the Hebrews and the Egyptians, were of a common origin. They came from Chaldea, the centre of the subsequently far famed Assyrian empire. So far, we can find nothing beyond the fact of the existence of midwives.

The Greeks may be considered, according to the knowledge which we possess, the pioneers in scientific *male* midwifery. In the time of Hippocrates, who died about 373 B. C., this branch of medical science was much cultivated, and the writings of that period evince as much, if not more, research and practical experience, than can be found in most part of Europe during the last century. Their system, however, was defective, and too much tinctured with superstition. Illithya was, in their belief, the goddess who presided over the birth of children, and they often contented themselves with invoking this imaginary deity. We know that with the aid of nature, Faith can work miracles.

About one hundred years before the Christian era, Soranus, said to be a Roman, and Moschion, a Greek, drew up the first manual of midwifery, which is to this day to be found in certain libraries. Their knowledge was derived from the writings of the Hippocratic age. As to scientific facts and principles, they added but little ; they however collated faithfully and condensed ably the accumulated facts of their predecessors.

The Romans, in the early period of their history, employed very simple means to facilitate the delivery of pregnant females. Their chief dependence was invoking, and sacrificing to Juno, Lucina, and other imaginary deities. The prejudices existing in those remote periods of time against any violation of the human body, deprived the medical faculty of that anatomical, physiological and pathological science, which has made such progress in the last half century, and which is so important in imparting efficient practical assistance, when

art is required to sustain and aid nature in a difficult case of parturition. At a later period, that which intervened between the downfall of the so called Roman republic, and the despotic reign of the Cæsars, women were employed as midwives, and their services proved adequate, with few exceptions, for the climate was mild, and the manners uncorrupted. Under the Emperors, when morals were debauched by licentiousness, and constitutions were undermined by luxury and dissipation, the difficulties of parturition became greatly increased, and women were found not to possess sufficient nerve to officiate in critical cases. There is on record a singular debate on this subject in the Roman Senate, the result of which was to prohibit women from acting in dangerous cases, where art and great firmness were required, and to assign the duty to men properly qualified, according to the knowledge of that age.

We now pass to the middle ages, as they are termed—a portion of time intervening between the lives of Aristotle and Bacon. A most dreary period in the drama of human life, when amidst great moral and political convulsions successive empires arose, predominated, declined, and fell—when to the world, the lights of science were extinguished —when there was neither learning, nor justice, nor pity, nor remorse, in the feudal castles—when the thick darkness of night oppressed and bore down intellectual energy and moral worth amongst the masses—when war was pastime, and robbery, and murder, and licentiousness constituted fame and earthly glory. Whilst this wave of moral darkness, superstition and crime was sweeping over Europe, the science of midwifery, in common with all other sciences, was paralyzed, and retrograded. All that we know about the obstetric art during those disastrous ages is, that when the mother died before the delivery of the child, the fœtus was cut from the body. We presume that the allusion is to the Cæsarian operation, for the mother being dead, that would be decidedly the best mode of procedure for the convenience of the practitioner and the safety of the child.

From the 13th to the commencement of the 14th centuries, the Popes lamentably retarded the progress of this art, and of medical science generally. New schools were established, but the professorships were conferred upon monks, to whom was accorded the privilege of practising medicine, while the study of anatomy and the practice of surgery were prohibited to the laity, no matter how anxious the Physician might be to acquire knowledge, or how great the intellect, skill and experience he might possess.

As might be naturally supposed, the obstetric art became, under such circumstances, more than ever governed by superstitious ignorance, than by the lights of science. When the skill of the monks, aided by women, and ignorant persons amongst the peasantry—(their submissive tools) was completely baffled, they resorted to prayers to the Saints. Images and holy relics were appended to the suffering woman in hard and protracted labor. No improvement took place until the sixteenth century. The rule and domination of the priesthood were predominant and overwhelming to truth, justice and science.

Early in the sixteenth century, the great improvement that had been made in the art of printing and engraving, caused the reprinting and multiplying, and diffusing of such works of the Greeks, Romans and Arabians, as had been saved from the general wreck. A rapid change in consequence took place; a general spirit of enquiry was excited amongst men of education. Intellectual intercourse between eminent professors followed, and in such efforts and contests, truth could scarcely fail to be elicited. The science of midwifery participated in the general movement, and in the general progress. The practice, however, was exclusively in the hands of women; it was deemed disgraceful for a man to be engaged in it; and it was considered, when practised by a man, to be a grievous attempt on the virtue and honor of the female sex. In Hamburg, for this offense, a man named Veites was condemned as a magician, and centenced to the flames. Several works for the better instruction of midwives were published. In 1513, Eucharius Roslein, a citizen of Worms, published a work called the *Rose-Garden*, for Midwives and pregnant women. The greater attention at that time paid to the science of anatomy tended much to the improvement of midwifery. Vesalius distinguished himself in this branch of medical science in the city of Padua, in Italy, in 1543. Whilst the physicians and surgeons were attending to the theoretical part of the science, Vesalius devoted himself to the practice. He operated upon the body of a woman who had died without giving birth to her child, by the Cæsarian mode, which operation is said to have been performed on the mother of Julius Cæsar to accomplish her delivery, and from which circumstance the name of the operation is said to be derived. This proceeding had a century previous been prohibited by law, which at this time commanded it. Vesalius gradually undertook the management of women, both during pregnancy and when in labor. In 1581 Rousset, a surgeon in Paris, published a treatise on the subject of the Cæsarian operation, in which he affirmed the possibility of its being safely performed on the living woman, and he even cited several

cases which in his practice had been attended with success. We are informed that Rousset first gave the name of *Cæsarian* to this operation. After the publication of this treatise, the operation was frequently resorted to in France and other parts of Europe ; and even in some cases where it was not absolutely necessary.

Pineau, another Parisian surgeon, was the first to suggest the section of the Pubes. This was in 1589. He had observed that in some instances, where the narrowness of the pelvis made the delivery of the child difficult and critical, a spontaneous separation of the bones took place. This separation is not a natural proceeding. It is the result of a desperate effort of nature to relieve herself in a case of extraordinary difficulty. Some women may have been uninjured by this operation, but we fear that by far the greatest number have been rendered sufferers for life. If we aim to save the life of both mother and child, and the only condition is the yielding of the bones, art is *surer*, although we cannot say safer, than nature. The former can always effect the object ; the latter may fail, as we well know is often the case.

In the 17th century, Midwifery did not make so much progress in Germany as in France and Italy. In the first named country the midwives were generally ignorant, and men were very rarely employed. In the latter countries, however, Physicians and Surgeons were chiefly employed in directing, in difficult cases, or personally assisting the parturient woman. It is well known to all the members of this convention, that medical science advanced slowly, though surely, in all its branches to the end of the 17th century. Towards its conclusion, Clement, another Parisian surgeon, who was much distinguished in the practice of midwifery, attended Louise La Valière, the mistress of Louis XIV., which proved successful, although attended with some danger. For his success on this occasion he received the name of *Accoucheur*, which was given him as an honorary title.

The first surgeon in Holland who endeavored to establish midwifery on scientific principles, was a practitioner named Henry, who resided and practised midwifery in Deventer.

In 1745 a school for midwives was established in Paris. It was the beginning of what is now the celebrated Hotel Dieu. From the time of Hippocrates, instruments had been used to facilitate difficult cases of labor. A general description of these instruments may be found in a work published by Abacasis, and entitled *Methodus Medendi.* (Second Book.) Also by Rhuet, at a later period, in a work entitled *De Conceptione.*

Between the years 1660 and 1667, a surgeon of London named Chamberlen affirmed, that he had invented an instrument, with which he was able to terminate the most difficult labors without any injury to the mother or child. It does not appear that this invention was communicated by him to any member of the faculty in Great Britain, but in 1688 he visited Amsterdam, and sold his secret to several practitioners, who derived much benefit from it. This is probably the origin of the improved modern forceps. In 1722 Palfyn, a distinguished anatomist and surgeon of Ghent, in Flanders, having by some means acquired a knowledge of the instrument, had one made for his own use.

Whatever discovery in relation to the forceps had been previously made, Chamberlen generally has the credit of being the first to make the blades of the forceps admit of separation, so that one part at a time could be introduced into the vagina or uterus, and be carefully adjusted, and when both blades were properly applied to the head of the child, they could be locked together. Improvements to this useful instrument were subsequently made by Levret in Paris, Plevier of Amsterdam, and Smellie in London. The principle was the same in all these improvements; there was simply some modification in the form and shape of the instrument. Their writings and lectures on Midwifery tended much to improve the art. About the same time considerable progress was made in Germany by distinguished Physicians and Surgeons, through their writings, and by their public instruction. Schools of Midwifery were established in the Universities, and with the aid of the collateral branches of instruction, the art was brought nearly to the perfection which it has at present attained. Germany may boast of many eminent men, who excelled in this department, and who were alike distinguished for their operative skill, sound judgment, and the diffusion of correct principles. So far in the present century, the reputation of the German Accoucheurs has been well sustained by the two Starks of Jena, by Osiander of Gottingen, by Siebold of Wursburg, and by Wegand, Nagele, Boer and Jury.

Amongst the celebrated English Accoucheurs, we have to speak of Dr. William Hunter. His writings were voluminous, and in the highest repute. It is unnecessary to allude to the various subjects of which he treated; we shall therefore only speak of his works and opinions that are connected with our subject. The most elaborate and celebrated of his publications was the Anatomy of the Gravid Uterus, illustrated by 34 large plates, and published in 1775. Three years afterwards he published reflections on the Section of the Symphysis Pu-

bis, in which he maintained the danger and impropriety of that surgical operation. Both he and his brother John had great confidence in the powers of nature in parturition, viewing it as simply a natural operation; and both were opposed to the use of instruments. Smellie, White, Bland, Denman, Burns, Gooch, etc., were also distinguished for their skill in the management of dangerous cases, and their instructive writings and lectures.

We have already spoken of some French Accoucheurs of note; to them may be added Ambrose Paré, Mauriceau, Guillemeau, Maubray, Le Motte, Peu, Puzos, Maygrier, Baudelocque, Velpeau, Dubois, Chailly, etc. Some of these are more distinguished by their writings, and others by successful practice.

In the United States, Shippen, a pupil of the celebrated Wm. Hunter, Dewees, Professor of Midwifery in the Medical Department of the University of Pennsylvania, and the author of perhaps the best treatise on the subject published in this country, and Bard, President of the College of Physicians and Surgeons in the University of the State of New York, and who published an excellent text book for students on the Theory and Practice of Midwifery, have well sustained the reputation of the Medical Faculty in this branch of medical science, on this side of the Atlantic.

SECOND PART.

Eminent practitioners have differed much about the propriety of using instruments. Some have argued forcibly against the use of them, except in certain critical cases, where nature appears to be inadequate to the expulsion of the fœtus. And others have been in the habit of using them on almost all occasions. We have already seen that Maubray, a French practitioner, and the two Hunters of London, were opposed to the use of instruments. Dr. Bard, in the introduction to his work on Midwifery, thus observes—"I confess, not without some regret, that towards the end of thirty years practice, I found much less occasion for the use of instruments than I did in the beginning, and I believe that we may certainly conclude, that the person, who in proportion to the extent of his practice, meets with most frequent occasion for the use of instruments, knows least of the powers of nature; and that he who boasts of his skill and success in their application, is a very dangerous man."

The opinion of the committee is, that they should never be employed unless it may be the only possible means of saving life. When the fœtus is implicated in the upper strait of the Pelvis, either within reach

or out of the reach of instruments, it matters not which, all that is necessary to relieve this condition of things, and to produce a favorable presentation, is to relax as suddenly as possible the system of the suffering mother; and we believe that bleeding from a large orifice, the woman at the same time sitting up in bed, will almost invariably bring about both results. The head being the heaviest part of the body of the fœtus, naturally descends and presents itself at the mouth of the womb. As a general rule, the system may be considered sufficiently relaxed when perspiration breaks out in large drops, and the woman complains of a sick stomach. Hippocrates has given the sanction of his authority to bleeding in lingering cases. We believe that a sudden loss of blood by venesection is usually eminently useful at the commencement of labor. It was recommended by Dewees and Francis, in their lectures, and is approved of by the profession generally. On the other hand, nothing is more injurious to the mother and the child than repeated bleedings, from the time that the woman becomes pregnant until the period of parturition. Your committee have seen the lamentable effects of such practice; and when the habit becomes established, the woman will be repeatedly bled in spite of the Physician. This pernicious practice being persevered in for several years, almost invariably terminates in a loss of vital energy, which renders life a burden, and entails premature old age or death.

Before dismissing this part of the subject, we would advert to a certain condition of things, which formerly proved very embarrassing to the practitioner, and endangered the life of both the mother and the child. It is when the head of the child has taken a wrong direction, and bears down on the rim of the pubis. In this case instruments are unavailing, and the effect of bleeding uncertain. The only safe plan is to watch an opportunity of introducing a finger between the head of the child and the pubis of the mother, which serves as a most safe and efficient lever to give the right direction to the head. This mode of proceeding was pointed out by Professor Dewees more than thirty years ago.

The use of belladonna in causing dilatation of the mouth of the womb, as employed and recommended by Professor Cenas, will materially aid to bring about this result, either alone or in conjunction with blood-letting. The use of this article was probably suggested by its effect on the pupil of the eye, when applied previous to the operation for cataract. It is well worth the attention of the faculty; and the experience of numerous practitioners, after a sufficient trial of it, may

lead to some important modification of treatment in Obstetrics.* In diseases of the womb, where the speculum is used, belladonna can hardly be dispensed with.

Ergot, or secale cornutum, is another important remedy in a certain condition of the parturient female, which should be noticed on this occasion. It is a diseased condition of the well known plant "Rye," which when thus vitiated, has been known to be for more than two centuries productive of dangerous gangrenous diseases in Europe. The committee are not aware of what particular circumstance suggested its use in lingering labors. It was first introduced into practice in France, to excite the womb, which, when unassisted, was not adequate to the expulsion of the fœtus. In Chapman's Therapeutics, published about thirty years ago, it is remarked, that in France "the practice seems not to have been regulated with any propriety, and ceased after a short time." He then observes, "As an article of the Materia Medica, the credit of establishing it must be conceded to this country. It is fifteen or twenty years since Dr. Stearns, of the State of New York, published an account of its wonderful powers in accelerating lingering labors."

Professor Chapman further remarks, that his experience "enables him to speak positively of its powers in this respect." The committee entertain no doubt of the powerful action of the secale cornutum in stimulating the exhausted womb to renewed efforts to expel the fœtus; yet it *is*, in the hands of inexperienced and incautious practitioners, a most dangerous remedy. Should it be administered before the os tincæ and the vagina are sufficiently dilated, rupture of the uterus, followed by the death of both the mother and the child, would be the probable consequences.

It follows, then, that the attending Physician should be satisfied that there is a well formed pelvis, and a natural presentation, as well as ample dilatation of the soft parts, before the remedy in question can be used with safety. Dr. Francis, Professor of Midwifery in the city of New York, having prescribed this remedy for a number of years, was of opinion in 1822 that it had a decided tendency, when frequently taken by the same individual, to prevent her subsequent impregnation. The committee are not able to confirm or refute this opinion.

As the necessity for employing ergot depends solely on *atony* of the

* It may render altogether unnecessary the disagreeable, painful and dangerous practice of endeavoring to dilate the orifice of the womb by mechanical force.

uterus, and not upon any structural defect, or the want of dilatation of the soft parts, it is probable that it would be seldom required in the course of one Physician's practice. Yet from its known poisonous qualities, there is reason to believe that however beneficial its action might prove on one occasion, it would, if frequently administered to the same person, disturb the vital functions of the system, and even be productive of the consequence suggested by Professor Francis. It is proper however to state, that Professors Chapman, James and Dewees, of Philadelphia, who between them administered ergot in more than two hundred cases, never saw it produce any ill effect on the child. Doctor Chapman further affirms, that he never saw harm produced by it in *any* respect, and that reports from other places confirm this opinion.

[*Concluded in our next.*]

VII.—BIOGRAPHICAL SKETCH OF THE LATE VOLNEY METCALF, M. D., NATCHEZ, MISS.

BY C. S. MAGOUN, M. D., MISS.

Already has too much valuable medical history been lost to the world and the medical profession in this South-Western section of the Union. Many brilliant and useful members of the profession have fallen in the midst of a career of toils and hardships—standing firm and undaunted at the post of danger—combatting the fearful diseases "that stand thick around, to hurry mortals to the tomb," and no historic record has preserved their names, their services, or the impress of their lives from the tomb of oblivion. It is time this state of things should exist no longer; henceforth let the historic page of medicine do its duty to the lives and services of the departed, as they in life did their duty to the suffering sons of want, in the extremity of disease and death. When such men as the subject of this memoir are stricken down, having adorned their age and profession, it is right that we should profit by their example, record their many virtues, and our knowledge of their labors, and thus transmit them to those who are soon to come after us, and fill our places in the active duties of professional life.

It is a consoling reflection to a good man, in his last moments of existence, to know and realize that all his efforts have been directed in one undeviating course to the accomplishment of the greatest good to the greatest number. The humane and benevolent Physician, who

has labored during the active period of his life, in endeavoring to mitigate its ills and miseries, by administering to the rich and poor alike, in the cold and stormy wintry blast, and amid the sultry and piercing summer's sun, and the damps and chills of the midnight hour. He has sleepless and disturbed nights of rest, irregularities of diet, uncomfortable accommodations, with the heavy cares and responsibilities of his many patients pressing upon his mind, and rendering his excited feelings still more severe. He has high and exalted claims on the community for their gratitude, when his life and his labors have been spent, and he should be held in lasting and grateful remembrance. Physicians may, and often do, regret their inability to afford the desired relief to their suffering patients, from the imperfections of the art of medicine; but still, if efforts are well directed, and failure attends, from uncontrollable disease, they should receive no less esteem than when they have the pleasing recollection of being instrumental in accomplishing the end desired.

Dr. Metcalf was the youngest of five sons of John Metcalf of Fauquier county, Virginia, but was born in Flemming county, Kentucky, on the 19th of September, 1804. His death took place after a few days' illness, at his plantation on Tensas river, in the parish of Concordia, on the 19th of October, 1852. He was called from Natchez to visit a physician in the neighborhood of his plantation, but was taken sick while on his way, and was unable to return home. His family were sent for, and arrived in time to administer to him in his last moments. He leaves a wife and several children to mourn his loss. Few men ever shared more largely in the esteem and confidence of all ranks and classes of society. His death has been a public calamity. His practice was extensive, constant and laborious; and many times has the expression fallen from the lips of his former patients—our beloved physician is *gone!*

He received his preparatory and collegiate education from the Professors of Yale College, where he graduated with distinction, enjoying the esteem and confidence of its professors. He then repaired to Philadelphia and commenced the study of medicine under the tuition of the distinguished Dr. S. Jackson. He attended the lectures and graduated in the University of Pennsylvania, and then removed to Adams county, Mississippi, the residence of his brother, Dr. James Metcalf, who was older than himself, and engaged at that time in an extensive and lucrative practice, with whom he commenced business, and remained engaged in the active duties of his profession for two years. But becoming dissatisfied with his medical attainments, and ambitious to improve

and distinguish himself, he repaired to Europe, spending most of his time in Paris, devoting himself to hospital practice, and in attendance on the lectures of the distinguished Professors of that great school of medicine. After an absence of about two years, he returned to the United States, and located in Natchez in 1838. Of the manner in which he spent his time in Paris, I shall make use of the language of one of his medical cotemporaries, who was with him a whole season in that metropolis.* "I found him regular in his attendance at the hospitals, and a close observer of the various diseases met with therein. He cared but little for gay company, and the frivolities of that capital, which were constantly passing before him, without turning from the even tenor of his way. Quiet, cool, yet cheerful—observant, and temperate in all things—he made the best possible use of his time, as a student, and set an example worthy of imitation. What he pretended to study, he studied deeply and thoroughly, and I am indebted to him for much useful information on many points connected with practical medicine. Among others, I may mention that of wounds of the head, and concussions of the brain. He told me that the best time to make observations on such affections was by candle-light, on Sunday mornings. He said the poor laborers of Paris, on returning home on Saturday night with their week's wages, were often knocked down and robbed, notwithstanding the numerous guards of the city. They would be removed to the hospitals early Sunday mornings, or during the night, with their wounds fresh and often bleeding, requiring immediate surgical attention. It was only the early risers, among the students, who would get an opportunity of seeing the wounds dressed, or witness the practice of the French physicians in concussions of the brain. He was a man, when abroad, not to be ashamed of his country, but was ever ready, on the proper occasion, to vindicate its customs and institutions from the sneers of the ignorant and conceited."

Unlike many medical men, Dr. Metcalf returned to his native land imbued with the early principles and doctrines of his medical education. The full and efficient practice among the poor, destitute and half starved population of Paris, was not adopted by him for the well fed and robust among our laboring classes. Great discrimination was necessary, in making the proper distinction between the treatment applicable to the two countries. This discrimination he possessed in a remarkable degree. He was not turned aside by the specious and fallacious reasoning of the eminent lecturers abroad from the true course indicated by careful study and laborious research. His European tour

* S. A. Cartwright, M. D.

improved him much, and to a very considerable extent aided in laying the foundation of his future brilliant career.

On his return from Europe he selected this city as the field of his labors, in 1838. In the autumn of the following year he was laid prostrate by an attack of inflammation of the knee, which resulted in a dropsical effusion of the joint. He was thus compelled for a time to quit his practice, and retired to the mansion of his brother on Second Creek, in this county.

After some months confinement, he was enabled to resume his practice, which he did in connection with his elder brother, who shortly after retired from the practice. In this location he remained till 1850, when he settled in Natchez, having acquired an enviable name, and an extensive and lucrative practice. On re-establishing himself in this city, he was extensively known and duly appreciated. He at once gained a desirable practice, was often called in consultation, and perhaps there has never been a physician here who made more consultation visits, and was more esteemed by his confreres. His urbane, frank and conciliatory manners inspired the good will and respect of all in association with him. His high sense of honor and fair dealing was known to all his medical brethren, so that he could be trusted to any extent in all the emergencies of professional life.

In the language of another, "he was in practice energetic, but not rash, accurate and discriminating in his diagnosis, a perfect adept in physical exploration—devoted unusual time and attention to the physical signs of disease, which gave him great advantages over the common run of physicians." He was among the first to use the sulphate of quinine in large doses; he contributed largely to establish this practice, which has of late years become so common and of so much value. Possessing a retentive memory, he kept pace with the advances in pharmaceutical preparations, and thus had all the improved remedies at his instant command. His resources were ample in all difficult and trying cases—laying aside the authority of books and taking a common sense view of the case, he more than met the expectations of his friends, in his success. His example will long survive. He has gone to his reward—in the midst of his career of usefulness—a victim to the disease which he often encountered—yellow fever. Let his virtues be an incentive to the living.

Natchez, Nov. 18, 1852.

VIII.--REPORT OF THE CHOLERA AT SACRAMENTO IN 1852—

Its Analogy if not identity with Malignant Congestive Intermittent—the attendant meteorological phenomena—history, pathology and treatment of the disease. In a letter to the Editor.

BY THOS. M. LOGAN, M. D., OF SACRAMENTO, CALIFORNIA.

The most propitious season for studying the Cholera in some of its peculiar relations and analogies, is just passing away, and I hasten with scientific avidity to reduce to paper the fresh impressions derived from renewed experience and trial.

Faithful to the promise expressed in my last communication, to observe the effect of the submersion of our country upon the general health, I called in the aid of meteorology, and to it assigned the office of sentinel on the watchtower of disease. By the 1st of August the average thermometrical range at 3 o'clock, P. M., having reached above 80°, I became warned by the bearing of this fact in vital statistics to expect the approach of the insidious foe that "walketh in darkness and destroyeth at noon day." Still my apprehensions were in a manner quieted, when I reflected upon the medium hygrometric state of the atmosphere, which was sustained by the continued prevalence of southerly winds, charged with oceanic vapor.* About the middle of August, however, these life giving breezes began to fail, and a northerly wind by night, the Simoon of this region, poured in the noxious emanations of a vast extent of Tubaré or swamp land, as well as the desicated air of hundreds of miles of arid desolation.

Soon the reports of occurrence of cases of Asiatic Cholera were promulgated by several respectable Physicians, and the mortality of the city became insensibly increased. Knowing the powerful influence of a panic in spreading the ravages of such an appalling disease as the so called Cholera, I unscrupulously raised my voice in denying its existence, except in a modified state, and which I conscientiously could do, entertaining the peculiar views I have already published in your valuable Journal respecting the Cholera of 1850 in Sacramento. These views have now received "confirmation strong;" at least strong enough

* Since writing the above I am credibly informed that the South winds, which "bears healing on its wings" to us, is the very wind which carries pestilence and death to Colusa, Shasta, and all the northern country. This offers the best evidence of the correctness of my observations, inasmuch as the South wind, after reaching the locality of Sacramento, passes in its course over the same region, and necessarily carries along with it the same deleterious atmosphere that the northerly winds do in visiting our city.

to satisfy my mind. I do not claim originality in regard to them; they have been already advanced by the most able writers in our profession. All I aim to do is to add my experience on a subject of the deepest interest, and thus by enlarging the sphere of our observations, contribute to the greater accuracy and profundity of future deductions.

Twenty years ago I entered the field of experimental practice with the Cholera in Paris. It was in the spring of 1832, and the weather was transparently clear and beautiful. Next I engaged in professional conflict with it in 1836, among the rice swamps of the Waccamaw, in South Carolina, during the autumnal fogs of that humid, unwholesome region. Afterwards, in the winter of 1848–9, I encountered the same disease in New Orleans, when and where it rained almost every day. Finally, I have witnessed its development on the shores of the Pacific during the arid and rainless autumns of California in 1850–52: and thus having invariably found it to prevail irrespective of seasons, I think my testimony is entitled to some weight, when I add my belief, that a high thermometric range is not an essential, *per se*, in its development.

Since the application of meteorology to medical science, it has been discovered that if variations of temperature alone are not sufficient to account for all the different diseases prevailing in certain seasons and climates, the greatest value, nevertheless, is to be attached to the hygrometric condition. This latter, it would seem, though not technically so, is the one really varying constituent of the atmosphere, often independent, according to Espy, of rain and temperature, and is sufficient to account for most of the influences ascribed to miasma. Thus the Sirocco and Simoon, so named from the pestilences they have borne upon their wings, have been found to derive their qualities mainly from being charged with a plus or minus proportion of vapor. In the first instance, the atmosphere becoming saturated with moisture, the decarbonizing power of oxygen on the blood is prevented, and the freedom of the secretions so much increased, that the system becomes relaxed and the blood impoverished; while, in the second instance, so profuse an evaporation from the blood, if I may so speak, is created, that vital action is interrupted in consequence of the system being deprived of the fluids requisite to sustain the organs in the due performance of their functions. Either excess appears to be equally injurious; and this is proved by the fact that the sickliest countries and seasons invariably have the highest dew point, and that in elevated or other regions, or at sea, where the greatest salubrity is enjoyed, a medium hygrometric state is usually present.

Now, these well established facts are in perfect accordance with all my observations during the Cholera epidemics, and in no instance is the coincidence of the irruption of the disease, with great hygrometric changes, more clearly shown than in its late development in the valley of the Sacramento. Indeed I candidly confess, that I did not perceive until I came to California, and my attention was forced to the subject, by the peculiar character of the climate, that either extremes of hygrometry had in every instance been attendant upon the appearance of the Cholera; and being heretofore at a loss to account for the prevalence of the disease at every season, and under *seemingly* every condition of atmosphere, I fell into the unphilosophical routine habit of attributing its propagation to some inscrutable virus or principle of contagion or infection. After, however, a due consideration of the events of former years—of the actual circumstances just transpired, and the morbid phenomena which presented—of the analogy with what occurs in other countries similarly situated, with respect to geographical and topographical position, as well as climatural influences, particularly Louisiana—after a careful comparison of similar phenomena in certain regions of the Eastern continent—in Persia, as observed by her Majesty's Physician to the Embassy, Dr. W. C. Bell—in India, by Mr. Thom, Surgeon to her Majesty's 86th regiment—in Poland, by Mr. Searle—in Italy, among the Pontine Marshes, and elsewhere, as observed by M. Bailly of Blois—the inevitable conclusion results, that the malady which has just ceased its ravages, and which has prevailed previously under the name of Cholera, not only here, but in Mexico and Central America, originated, like any other endemic, independently of any extraneous causes, and is essentially nothing more than a pernicious or congestive fever, of an intermittent type, which rapidly assumes the most malignant symptoms, sometimes on the first day of its invasion. Nor do I think it will be advancing in the premises too far beyond the legitimate inference of analogical reasoning to assert that Cholera, whether it prevails in India or California, in Europe or in Africa, is every where and always one and the same disease, modified by geographical influences and atmospherical vicissitudes.

If the qualities of the medium in which we breathe and live is acknowledged to be capable of producing disease at all, under conditions to which we are not accustomed, then why should not one form of disease be as well produced here as another? We have the same meteorological influences to contend with as one found to prevail in other countries where Cholera is credited to originate, and more than this, our systems are liable to the acquisition of exalted susceptibilities from

a high range of temperature. That such a modification of disease, then, as has just been witnessed, should be developed here, is not more surprising than that Plague should exist in one country and Yellow Fever in another; or that Goitre is indigenous to Alpine regions and dry gangrene to Mexico. Nor does it detract from the reliability of my conclusions if the nature and modus operandi of the predisposing and exciting causes cannot as yet be satisfactorily demonstrated. Doubtless as meteorological science becomes more cultivated, and successive data are recorded, with which comparisons may be instituted, that which appears obscure now may be made perfectly intelligible. The spirit of philosophic research is abroad, and the search after truth will assuredly penetrate the arcana of disease.

Let the result be as it may, however, the fact cannot be controverted that a peculiar disease, call it modified Cholera if you please, has just run its course here; the same form of disease which prevailed in the fall of 1850, and which I believe has existed in the country from time immemorial.

Before proceeding to treat specially of the history of the disease in connection with its recent irruption here, it becomes necessary to give a glance at the geographical position and topography of the valley, in the midst of which the city of Sacramento is situated, in order to substantiate my assertion; and after this I must leave to time and future generations the evolution of the corrolaries that may confirm my assertions.

This valley, together with that of the San Joaquin, may be considered one; a single geographical formation, according to Fremont, near 500 miles long, varying in breadth from 40 to 80 miles, and lying at the western base of the Sierra Madre, and between it and the coast range of mountains, and stretching across the head of the bay of San Francisco, with which a delta of 25 miles connects it. The two rivers, Sacramento and San Joaquin, rise at opposite ends of this long valley, receive numerous streams, many of them bold rivers, from the Sierra Nevada, become themselves navigable rivers, flow towards each other, meet half way, and enter the bay of San Francisco together, the region of tide water, making a continuous water line from one end to the other. The northern section of the valley through which the Sacramento flows is upwards of 200 miles long, and is bounded on each side by extensive flats or Tularé lands, subject to annual overflow. These immense tracts of marsh land are intersected in all directions by extensive sloughs and lakes, which frequently have no communication with either the Sacramento or its tributaries, except at the time of high wa-

ter, (for the Sacramento is considerably affected by the ebb and flow of the ocean) or of freshets. In fact, the immediate banks of the Sacramento, like those of the Mississippi, form, generally speaking, the highest part of the country; so that when the waters fall, a vast extent of this submerged land remains undrained, and its stagnant waters are left to be gradually dried up by evaporation. The whole valley lies parallel with the Pacific coast, which runs from southeast to northwest, and at the point where the city of Sacramento is situated, there intervenes a very small portion of this marsh land in a directly south line between it and the ocean.

In a former letter, giving an account of the Cholera in 1850, I have already adduced the history of the past, to show that the disease is neither new upon the shores of the Pacific, nor in California. As far back as 1583, Cortes stated, that on his reaching the Pacific, so great a mortality spread among his companions, that he was compelled to fly in haste and abandon the inhospitable coast. The annals of the early missionaries also show upon their pages that every autumn many persons fell victims to a disease closely resembling Cholera. In corroboration of these historical facts, all the old Californians and early settlers agree in testifying to the prevalence of a fatal disease here during the fall; and immediately after the conquest of the country, so terrible was the malady at Fort Sutter, that nearly the whole garrison was carried off. Thus it appears that long before Cholera was heard of, a disease existed in this quarter of the globe equally as alarming, and if it was not equally as prevalent, it was because of the sparcity of the inhabitants.

As to the special history of the disease this season, I would remark that the same affections observed in 1850, and which generally precede and accompany the appearance of Cholera in any city or country, prevailed also to a considerable extent. Early in June diarrhæa and dysentery began to appear, intercurrent with occasional cases of remittent and intermittent fevers. By the 1st of August the two last named diseases became more frequent and unmanageable, generally assuming typhoid symptoms. As the season advanced all these diseases seemed to run into and modify each other, becoming more and more complicated and grave. Finally a peculiar combination of morbid actions, marked by features of periodicity, and embracing more or less all the symptoms of the foregoing diseases, to which was superadded intense disturbance of the nervous system, declared itself.

About this time the hottest weather was experienced. There was little or no circulation in the air, and when there was force enough in

the wind to produce a perceptible current, it was generally from the west or northwest. The atmosphere became insufferably parched and heated, especially towards evening, after the action of the day's scorching sun. Vegetation dried up, and the whole animal kingdom seemed depressed and exhausted under the prostrating influences. The mean quantity of humidity contained in the atmosphere at this time was never more than 35 to 40 per cent of that required for its saturation. Through this series of morbid actions and concomitant meteorological phenomena, so like what have been observed at Strasburg, and several other similarly situated regions where Cholera has prevailed, I was led by a species of natural analogies and easy transitions to suspect the nature of the subsequent affection.

This form of disease began to unmask itself and show its true features towards the last of August. At this period nearly every one in the city was brought more or less under its influence. There were but comparatively few inhabitants who did not complain, either at one time or another, of an obscure pain at the præcordia, and oppression of the heart, with coldness of the tongue and extremities, or some derangement of the digestive organs with diarrhœa; and this I regarded as the forming or first stage of the affection. In those whose powers of resistance to disease were feeble, or if the oppression was greater than the power of the heart could overcome, gasping with a sense of suffocation from a weight or lump at the epigastrium, were superinduced; the skin became pale, and the features shrunk, in consequence of the blood deserting the superficial capillaries, and these symptoms were generally accompanied or followed with the well known spasmodic rice-water vomiting or purging. There were some varieties in these evacuations, being sometimes more copious and violent than at other times; but, however else they differed as to their sensible qualities, this circumstance was universal, that they were devoid of fecal smell and contained no bile.

The circulation soon became sensibly disturbed and lowered; the pulse could scarcely be felt at the wrist, while the temperature of the body rapidly decreased. Now this cannot be regarded as a prolongation of the forming or cold stage, because, although the skin was icy cold, the patient did not complain of coldness at all, nor act like a man does when exposed to intense cold and subdued by it. On the contrary all his desires were for cold drink; he would throw off the covering and desire to be fanned or refreshed with cold air. That these symptoms were the result of an active condition of the capillary circulation, was denoted by the pulse remaining contracted, small and wiry, as long as

it could be felt, and never becoming soft, slower or feebler, as in adynamic collapse. Sometimes, nevertheless, the vomiting and purging soon ceased ; and sometimes there was neither sickness nor diarrhœa at all, but owing to unequal distribution of blood in the capillaries, active congestions of either the brain or lungs manifested themselves : in the first instance by total unconsciousness and stertorous inspiration, with yet a full, strong, regular pulse ; and in the second instance, by lividity of the countenance and blackness of the lips, with dyspnœa—the skin in both cases being bathed with a cold sweat. Associated for the most part with the symptoms of the second stage, there was more or less spasmodic contraction of the muscles of the calves of the leg, feet, hands, and sometimes of the abdomen. These spasms were attended with some pain, and constituted the greater part of the patient's suffering. In every phasis of the disease, the renal secretion was entirely suppressed. If, which was very rarely the case in subjects judiciously treated, no amelioration of these distressing symptoms occurred before twenty-four hours, a striking alteration took place in the appearance of the patient. All facial expression was lost. The eyes became hollow, glassy, and surrounded by a bluish circle ; the pulse imperceptible at the wrist, and the tongue of a leaden color and unpleasantly cold to the touch. The fingers became blue, shrivelled, and corrugated like a washerwoman's ; the voice husky and faint ; in short, the whole countenance as withered and ghastly as that of a corpse.

Such were the symptoms which the term collapse might now be used with some propriety to denote, for they always attended a fatal termination, which generally occurred in such cases without a struggle, or preceded only by a few short convulsive heavings of the chest. Occasionally, after a short interval of repose, answering to a remission, a slight appearance of reaction, indicated by some throbbing of the carotids and warmth of the chest, was perceptible, attended with sleep, from which the unhappy victim could be roused only for a moment. Perfect coma succeeded, and the patient did not survive more than a few hours. Generally, however, if not improperly treated, a decided interval of repose, which I would call intermission, obtained in the course of twenty-four hours from the commencement of the attack. This stage was more or less imperfect in proportion to the perturbation of the nervous system, caused by the state of congestion of the irritated organs, and was indicated by a cessation of the spasms, vomiting, purging and cerebral disturbance. The breathing became unembarrassed and a genial warmth diffusing itself gradually and equally over the

surface, the patient would sometimes fall into a short but tranquil sleep, accompanied with gentle perspiration. After an hour or so, he would rouse up, and saying he felt better, might throw an unobservant Physician off his guard. The penetrant eye of experience would see, however, in the dull injected sclerotica, the torpor or stupor of all the faculties, the now dry, red, and glistening tongue, enough to excite the most active vigilance and most decisive treatment. It is the period of intermission, and it is soon over. The irritation is persistent and is in the abdominal nervous system; and it is this continued irritation in this region, which, transmitted to the brain, slowly, it is true, because circuitously, and through the plexus and ganglions of the grand sympathetic, finally produces a coma, which terminates in death.

Such is the brief history, pathology and symptoms of the disease, which prevailed here from the latter part of August until a corresponding period in September, when, after a succession of cool, southerly winds, it disappeared as abruptly as its advent was sudden and appalling.

During all this interval we experienced the warmest and most oppressive weather, suddenly interrupted at times by a cool, chilling west or northwest wind. For the greater part of the time there was no wind at all, and although what little there was predominated from the south, still this was not sufficient to rectify the defective hygrometric condition of the atmosphere already mentioned. As the sun sank in the west, a complete atmospherical stagnation would set in until towards midnight, when a cool northerly breeze would chill and thus excite to disease the wearied and exhausted system. The almost universal opposition manifested among the medical men of the city to the peculiar views of the epidemic promulgated by my associate, Dr. J. F. Morse, and myself, induces me herewith to subjoin our weekly meteorological reports during this period, together with the accompanying remarks published by us, in order to show how we were by *gradation* to suspect the true nature of the malady, and its relations with Cholera. I would remark, that the building in which our observations were made is of brick, facing the south, with a free circulation of air through it, and that the thermometer and barometer stood in the centre of the lower story.

Meteorological Tables from the 29th August to 25th September.

1852.	Sunrise.			3 o'clock p. m.			Sunset.		
August & September.	Wind.	Barometer.	Fahrenheit.	Wind.	Barometer.	Fahrenheit.	Wind.	Barometer.	Fahrenheit.
29	SSE.	27.10	67	S.	27.10	82	SE.	27.10	78
30	SE.	27.10	66	S.	27. 9½	79	SE.	27. 9½	75
31	E.	27.10	66	W.	27.10	84	W.	27.10	80
1	NW.	27.10	70	NW.	27.10	91	W.	27.10	85
2	SW.	27.10	74	W.	27.10	85	S.	27.10	85
3	SE.	27.10	76	S.	27.10	94	SW.	27.10	91
4	SE.	27.10	76	S.	27.10	91	S.	27.10	85

Remarks. During the past week there have been very unusual atmospheric changes, as will be perceived by a careful examination of our table. By comparing the 30th of August with the 3d of September, it will be seen that there is a difference of fifteen degrees in the maximum heat of these two days. On the 2d September the horizon was almost constantly beclouded, and in the evening of that day there was a little rain and a good deal of vivid lightning in the southwest. On the evening of the 3d, which was by two degrees the warmest day of the season, there was also considerable lightning visible in the east. To these climatic changes, miasmatic exhalations and exaggerated rumors of the daily mortality may be attributed a marked change in the prevailing diseases of the week. All of the maladies previously reported have assumed a general congestive tendency; a tendency which has in some cases been so great, as to terminate the disease by many of the prominent symptoms of Asiatic Cholera, during the first two or three days of its manifestation. That we have had among us true Asiatic Cholera, is a matter about which there is abundant room for doubt; or if it is to be admitted, the disease is at any rate so modified as to relieve it of its most appalling features. We believe that the disease which has increased the mortality of the city is essentially a modified congestive ague, periodic in its nature, and generally most amenable to a judicious application of remedies. Indeed for the last two or three days there has been such a mitigation in the symptoms characterizing this form of the malady, that no important difficulty is experienced in overcoming it. The disease is seldom complicated and unmanageable unless it has been primarily neglected, or aggravated by the stimulating specifics which are too commonly resorted to by invalids.

1852.	SUNRISE.			3 O'CLOCK P. M.			SUNSET.		
September.	Wind.	Barometer.	Fahrenheit.	Wind.	Barometer.	Fahrenheit.	Wind.	Barometer.	Fahrenheit.
5	SE.	27.10	74	S.	27.10	89	S.	27.10	76
6	SE.	27.11	70	S.	27.10	81	S.	27.10	73
7	W.	27.11	62	W.	27.11	75	SW.	27.10	75
8	S.	27.11	65	W.	27.10	83	SW.	27.10	76
9	SW.	27.10	70	NW.	27.11	86	SW.	27.10	82
10	SW.	27.10	72	W.	27.11	88	SW.	27.11	92
11	S.	27.11	74	SW.	27.10½	82	W.	27.10	90

REMARKS. The hottest weather of the season has been experienced during the week, the thermometer having risen higher by two degrees on Friday last than on any previous day. Contrary to what might have been expected, the mortality of the city has sensibly decreased; and when we take into consideration the vast number of sick and valetudinarians now in the city, it is wonderful that the proportionate mortality is so small. It is gratifying to find the opinion advanced by us last week thus sustained, viz., that the prevalent disease "is most amenable to a judicious application of remedies;" and we trust before long to have the happiness of pronouncing our city as free from disease as can reasonably be expected during the autumnal season in an alluvial region subjected to annual submersion.

1852.	SUNRISE.			3 O'CLOCK, P. M.			SUNSET.		
September.	Wind.	Barometer.	Fahrenheit.	Wind.	Barometer.	Fahrenheit.	Wind.	Barometer.	Fahrenheit.
12	S.	27.10	78	S.	27.10	89	S.	27 10	83
13	S.	27.11	68	S.	27.10	81	S.	27.11½	78
14	S.	27.11½	62	S.	27.10	75	S.	27 10	72
15	W.	27.10	64	W.	27.10	83	SW.	27.10	76
16	S.	27.10	64	W.	27.10	86	SW.	27.10	74
17	W.	27.10½	66	NW.	27.11	88	NW.	27.11½	84
18	NW.	27.11	62	NW.	27.11	82	W.	27.11	80

REMARKS. The weather during the past week, especially during the earlier part, has been cool and agreeable; but owing to the prevalence of a northwest wind, the Simoon of our locality, for the last two days, there has been rather an increase of sickness among us. We are happy to perceive, however, by Mr. Youman's report, that the proportionate mortality continues to decline; and this gives us reason to hope that as soon as the present impure stagnation of the air is removed by a return of our refreshing southerly breezes, a more improved sanitary condition will obtain.

1852.	Sunrise.			3 o'clock, p. m.			Sunset.		
September.	Wind.	Barometer.	Fahrenheit.	Wind,	Barometer.	Fahrenheit.	Wind.	Barometer.	Fahrenheit.
19	se.	28.	68	s.	28.	82	s.	28.	78
20	s.	28.	66	s.	27.11	74	s.	27.11	70
21	se.	27.10	64	se.	27.10	72	se.	27. 9	67
22	sw.	27. 9	59	s.	27. 9	68	s.	27 9	65
23	s.	27.11½	56	sw.	27.11	67	w.	27.11	86
24	s.	27.11	56	nw.	27.11	70	sw.	27.11	70
25	nw.	27.11	59	nw.	27.11½	72	sw.	27.11½	72

Remarks. A succession of cool southerly winds since the beginning of the past week, has supplied the necessary moisture for a healthy hygrometric condition of the atmosphere. In addition to this propitious change, we have to record the occurrence of a frost in the neighborhood of our city. As might have been expected from the well established laws of meteorological science, the sanitary condition of the whole country has been influenced by these important changes; and with the exception of intermittent and typhoid fevers, and the sequelæ of former maladies, we can pronounce our city to be in a state of comparative immunity from disease.

The above reports and observations, which are copied *verbatim* from our daily papers, constitute intrinsically the most reliable account of the past epidemic, inasmuch as they were drawn up from time to time, in accordance with the stringency of facts, and the impressions made upon us at the moment. They were intended to subserve no special purpose, further than to furnish the public with a true statement of the actual sanitary condition of the city, and thus to prevent, as I have before stated, a panic—the most fruitful agent in propagating an epidemic. That this object was accomplished, the following abstract from the mortuary reports incontestibly prove.

Deaths in Sacramento for four weeks beginning 29th August, and ending 25th September, 1852.

	Cholera.	Other diseases.	Total.
First week,	45	21	66
Second "	26	26	52
Third "	13	28	41
Fourth "	4	24	28
	88	79	147

Thus it appears that the aggregate number of deaths by Cholera during the four weeks of the greatest prevalence of the disease amounted to only eighty-eight! Was such a result ever heard of before in any country where Cholera ever prevailed? And when, too, it is stated, that the population of the city amounted to at least ten thousand, and that of these about two-thirds suffered more or less from the epidemic, the marvel will become still more marvellous. If I am in any possible manner amenable to the charge of an infringement of medical ethics in publicly contradicting the whole medical faculty of the city, by stating that no Cholera existed, because with my preconceived views I regarded Cholera as a species of congestive intermittent, I nevertheless rejoice that I had the moral courage to hazard what little medical reputation I may possess in staying the ravages of so appalling a disease as Asiatic Cholera, which every Physician, with one exception, pronounced it.

After this candid statement of the naked facts connected with the appearance and progress of the disease called Cholera in Sacramento, I deem it would be supererogatory in me to adduce any further arguments to sustain my premises. The ingenuous mind must acknowledge that if the history and pathology of the disease which I have endeavored succinctly to describe, be sufficient to establish its identity with Cholera, they are also equally cogent in proving its assimilation to the algid form of the perncious intermittents, such as were so long ago accurately described by Torti, Ramazzini and others, and in our times by Rubini, Bailly and Maillot. In both diseases we find the same gastro-intestinal symptoms, the same complete suspension of the natural secretions, and in their stead the same inordinate discharges of serous fluid from the blood, from which the patient falls into a *deliquium* as from bleeding. How then is it possible to draw the line of diagnosis between them? What two other diseases, excepting an occasional case of yellow fever, ever exhibit the singular phenomenon of a patient being entirely pulseless, even up to the large arteries, and yet preserve his intellect and powers of locomotion? Or, contrasted with this well known fact in the most commonly recognized stage or variety of these two diseases, in what other series of morbid actions is such an alteration of sensibility, thought and motion, as amounts to apoplexy, ever met with, while the pulse remains full, strong and regular, and the skin is bathed with a cold sweat? We leave the solution of these difficulties to the *dilettanti* in pathognomonics, and pass on to the treatment which will, perhaps, develop my views of the disease better than what I have already written.

It must not be supposed that all, or even a majority of the cases we were called upon to manage, were distinguished by such formidable features as have been already mentioned in my general summary of the symptoms. During the prevalence of the epidemic, it was my fortune, in company with my colleague, to treat an average of about fifty patients per diem. That most of these presented very mild symptoms, or were most successfully managed, will readily be accredited when I add, that out of the whole number but five died, and these were either from among those of the intemperate class, or those who neglected the premonitory symptoms, and were in a moribund condition at the time we were called.

It was our invariable practice, whenever a patient applied for advice during the impending or forming stage, to impress upon him the absolute necessity of abstaining from all kinds of excitement, intellectual or bodily, sentimental or sensual; to avoid the erect posture, whereby the heart is quickened many contractions, as evinced in the differential pulse, and to seek repose, or the recumbent posture, which natural instinct would suggest. Next, in order to restore an equable temperature, we directed, according to circumstances, either a sinapism to the epigastrium, or a hot sinapized pediluvium—generally both at once. Believing the chief irritation at this time to exist in the series of organs contained in the abdominal cavity, and which are governed chiefly by the ganglionic system of nerves, we took special care, whenever and wherever we could, that nothing should be administered which might increase the irritation or complicate the disorder in this region, unless diarrhœa presented; and this we generally succeeded in controlling, either with a few pills of blue mass and morphine, or the ordinary chalk mixture, to which a small portion of Sydenham's laudanum was added. If there was irritability of the stomach, we readily appeased it with a few doses of the following mixture—the decoctum album of Sydenham modified.

℞ Calcis Phosphas ʒ ij
Aq. Flos. Aurant. ℥ ss
Sol. Gum. Acaciæ ℥ iiiss
Fiat Mix. Sig. Cock; om. semi hora.

Thoroughly carried out with total abstinence from food of any kind, this course generally proved efficacious in the majority of cases we were called upon to treat in the incipient stage. When, however, after the lapse of twenty-four hours, as not unfrequently happened, a recur-

rence with aggravation of the primary symptoms occurred, (and a great proportion of patients generally put off applying for advice until this stage in the disease) other and more active measures were speedily resorted to. Regarding the disease in the same light as Dr. W. C. Bell, whose philosophic views and reasonings have guided us in every step of the treatment, we believe that the ordinary action of the capillary circulation is now strangely altered. The blood is poured inwards, and distending the cavæ and oppressing the heart, which is heard struggling and *churning*, in the active endeavor to overcome obstruction, is necessarily driven back from the gorged vessels upon all the internal venous branches unprovided with valves. "The renal veins," quoting the same authority, "are next distended, and the returning current of blood from the kidneys is stopped; consequently, a first symptom of such congestion is the cessation of the secretion. In like manner the hepatic circulation is oppressed, obstructing the secretion of bile. At the same time another effect is produced by the same cause. The portal circulation, at first impeded by meeting the reflux from the vena cava, is presently reversed, and the blood is thrust back into the mesenteric veins, till it distends their extreme ramifications on the mucous membrane, where it finds a species of vent; for from this surface the repelling force squeezes out the fluid portion of the blood into the bowels, carrying with it the mucous epithelium, and constituting that serous or rice-water evacuation, which is esteemed characteristic of Cholera, but which has no title whatever to the name of secretion, or to be treated as such, being a mere exudation, which is the very reverse of a vital action."

That these are the direct effects of too much blood being driven in upon the right side of the heart, and that by diminishing the volume of this blood, the mechanical cause would be removed, and relief thus obtained, is a deduction as rational as it is practical. Experience, nevertheless, proves, that the desired result is not to be attained so effectually or certainly by directly opening a vein, as by the indirect action of scarified cups. This latter mode of abstracting blood not only acts beneficially by relieving congestion, but the counter irritation excites the general circulation by continuous sympathy, and what is of more importance, aids in relaxing the spasm of the capillaries. Every thing, however, as we found by practice, depended upon the time and mode of this application. If resorted to when the exudation from the skin or bowels was yet flowing freely, and the pulse and other signs indicated that the heart was laboring with unabated vigor, scarified cups invaria-

bly proved salutary; they not only relieved the suffering organ by abstracting blood from the circulation, but the heart was also afforded time to accommodate itself to the altered quantity of blood. At the same time, while applying the cups immediately over the congested region, blood was drawn precisely from the part where it should be taken, and the benefits of revulsion procured by making the scarified openings on the skin so many points of afflux; thus opposing a temporary external congestion to a more enduring internal one. Applied, however, when the congestive stage is passing off, and the natural warmth of the skin is a little more extended on the neck and chest—when the patient, though still tossing about uneasily, is comparatively relieved from his previous agony, we would exhaust the little energy and irritability of the heart, already impaired by long continued distension, and hasten a fatal termination.

We now turn to those medicines which will invigorate and regulate the system generally and control the tendency to periodical disturbance; for this is the period of intermission to which I have already alluded, and it requires the utmost vigilance and careful observance of the different stages of the disease to detect it. Once detected, not a moment is to be lost.

Relying on an experience which extends through centuries, and is the result of the observations of Physicians in every country, we lost no time—nay, we rather anticipated the contingency by administering iron and quinine; iron, for the purpose of facilitating the oxygenation of the blood, and combatting the tendency to venous congestion, and quinine, for its acknowledged anti-periodic properties. Nor did we rest content here, but generally applied a large epispastic over the epigastrium, both with a view to its permanent counter-irritant effect, and its well known efficacy in preventing the recurrence of irritation of the nervous system in periodical fevers. The preferable mode of administration, with a view of obtaining the earliest effect of the above medicines, is in solution, and in such a medium as will prove most palatable to the patient, and be most likely to insure its retention by the stomach. Contributing to the latter end, and harmonizing well with the quinine and iron, we sometimes added a very small portion of morphia and camphor water. These latter, however, particularly the morphia, were employed with the utmost caution, for such was the extreme impressibility to medicine, that we met with more than one case in which complete narcotism was produced by the twelfth of a grain of sulphate

of morphia. When convinced of the propriety of the union of these remedies, the following formula was found to be most convenient.

℞		
	Quinia Sulph.	℈ j
	Ferri "	℈ ss
	Morphia "	gr. ss
	Acid. Sulph. Aromat.	ʒ ij
	Aqua Camphoræ	℥ ij
	Ft. Solutio.	

The dose of this mixture was of course regulated by circumstances. A table spoonful for the first three or four consecutive 15 minutes, seemed generally to respond well to the indications; and when this was the case, a repetition of the dose every half hour afterwards seemed to produce all the desired effect. If no decided prolongation of the period of intermittence or repose was produced by these means, the succeeding paroxysm generally proceeded to a fatal issue, as I have already described.

Such is only a summary of the most important part of the treatment employed by us for the disease which I have endeavored to describe as succinctly as the nature of the subject would allow. Of course there were other remedies and adjuvants resorted to, but to begin to mention these, or even to enumerate the many exigencies and peculiarities continually presenting and requiring a modification and variation of the *febrifugum magnum*, or the other sheet-anchor of safety, cucurbita scarificata, would occupy more space in your Journal than my deference to the scope of your views will allow me to occupy.

P. S. Just before closing this well written paper by Dr. Logan, news reached us of the terrible conflagration of Sacramento City, and we perceive with the deepest regret by the papers that Dr. Logan has been a severe sufferer thereby. (*Ed.*)

Part Second.

EXCERPTA.

I.—*On the Climate and Diseases of California.*

BY DR. BLAKE.

The investigation of the modifications produced on diseased action by the influence of external circumstances, opens an interesting field to the researches of the medical philosopher ; for it presents an example of an experiment made by nature on a vast scale, in which some of the most important elements modifying disease are so completely changed, that we have an opportunity of observing the phenomena they present, under circumstances which would never have been produced by artificial means. This consideration invests the subject of the investigation of disease in this country with a degree of interest which renders it worthy the attention of those who take a pleasure in elucidating its complicated phenomena ; and whilst fully realizing the importance of such an investigation, I have to regret that the data which a limited practice has enabled me to collect can throw but little light on the subject. The facts, however, that have been observed, in relation to the climate of our winter months, will probably be interesting to many of your readers. The data recorded have been only those which are likely to influence the progress and character of disease, and, as it will save space, I will present them in a tabular form.

	Nov.	Dec.	Jan.	Feb. 1 to 16.	March 8 to 31.	April.
Mean temperature - -	51°	44.6°	47.7°	48.2°	52.2°	60.7°
Highest temperature - -	73	68	70	71	79	93
Lowest temperature - -	31	26	31	28	32	39
Mean of maxima - - -	66.2	57	60	64.4	66.6	77.5
Mean of minima - - -	42.6	36	37.2	37.8	44	49.3
Mean temperature of north winds	48	41	46	51	51	63
Mean tempetature of south winds	55	50	50	49.5	50.7	58
Mean minima of north winds	34	32	38	39.5	37	49.2
Mean minima of south winds	48	43	39	38.5	42	48.5
Number of days of north wind	15	7	10	6	5	5
Number of days of south wind	12	8	4	4	12	12
Number of calm days - -	13	16	17	6	7	14
Number of clear days . -	16	20	19	13	9	13
Number of cloudy days - -	7	6	6	3	8	12
Number of rainy days - -	7	5	3		7	4
Amount of rain - - -	inch. 2.7	inch. 2.5	inch. 0.7		inches. 2.5	inches. 1.8

From the above table it will appear that the most important feature in the climate of this country, during the winter months, is its equability. In no instance has the thermometer fallen more than 21° below the mean temperature in any one month, and the difference between the mean temperature taken at the coldest part of the day, and the lowest temperature observed during any month, does not exceed 11°. This fact presents a striking contrast with the variations of temperature observed in the Atlantic States, where it is not at all uncommon to find the thermometer descending thirty or forty degrees below the mean temperature, even of the minima. In Rome, where the average temperature of the winter months is about the same as here, the thermometer sometimes descends as low as 23°, whilst here it has not been noted below 26°; and there can be no doubt that the winter of 1850–51 was a cold one, on account of the absence of strong southerly winds and rain, which are always accompanied, during the winter months, by a higher temperature. From all I could learn from those who had been in the country for many years, the temperature of 26° was a cold they had never before experienced. This season, 30° is the lowest point that has been reached; in fact, the temperature of the winter months is most congenial, being generally about 36° at sunrise, rising to about 60° through the day, and again falling towards evening.

The direction of winds in this part of the valley is, as a general rule, N. and S., or varying but very slightly from these points. I have never observed an easterly wind; and this absence of easterly winds is a fortunate circumstance, as regards the climate of the valley, as a strong wind from that direction, blowing across the snowy peaks of the Sierra, could not fail to bring with it unpleasant indications of the country it had travelled over. The influence of the winds on the temperature varies according to the season of the year. In the winter months the north winds are the colder, and the south winds, which, when strong, are always accompanied by rain, are warm. Towards the spring, the north winds become warmer, on account of the sky being generally clear when these winds are blowing, and the sun having more power, raises the temperature. It will be seen, however, that the mean minima of the north winds, or the lowest temperature observed on those days on which the wind is from the north, is still below the minima of south winds until the month of

April, when the summer climate decidedly shows itself, in which the north winds are always the minima.

As regards the force of the winds, it is generally but slight; it only blew hard from the south twice during the whole of last winter, and the north winds are generally very light. The atmosphere is usually calm, and only agitated by slight local currents.

It will be seen also by the tables, that the sky is, as a general thing, clear, and this is so during the only season of the year in which a cloud is ever to be seen in the heavens. The quantity of rain that fell during the winter of 1850–51 was about eleven inches; there can be no doubt but that this was much below the average, and probably not more than a fifth of what fell in 1849–50. During the whole of the winter months the air is decidedly moist, the dews are extremely heavy at night, the air is frequently loaded with fogs in the morning, and it is rare to see a difference of more than six or eight degrees between the wet and dry bulb thermometers.

On account of being engaged in geologizing in the mountains during the summer, I have not any extensive series of observations showing the nature of the climate during this season. The principal characteristics of our summer climate are, a high temperature during the day, cool nights, and a dry state of the atmosphere. From some few observations made at Sacramento, during the months of July and August, the average temperature at sunrise was 63°, at 3 P. M. 94°. The highest temperatare noted was 98°, although I was not in the valley during the hottest days. On one occasion, last summer, the thermometer rose to 106 in the shade; this was in the mountains, and it is probable that the thermometer was almost as high in the valley. During the summer months a southerly wind generally prevails, rising about eight or nine o'clock in the morning, and continuing until sunset, or even during the whole of the twenty-four hours. This tends to moderate the temperature, tempered as it undoubtedly is, by the cold sea breeze that blows so constantly on the coast. The hottest days are those on which the wind is from the north, loaded as it is with the heated air of the valley between the Sierra and coast range. But the most important element, as regards the summer climate, is its hygrometric condition. From observations made in July and August, the mean quantity of humidity contained in the atmosphere was not, during the hottest part of the day, more than 40 per cent of that required for its saturation, and I have not seen it rise above 74 per cent even at sunrise. In September and October the temperature becomes lower, and at the same time a considerable change takes place in the condition of the atmosphere. The sky still remains unclouded and the weather dry; but the winds, which are rarely absent during the months of May, June, July and August, are now seldom felt, and the air becomes more moist. The mean of some observations made in September gives 80° as the mean maximum, and 60° as the mean minimum. The atmosphere at the maximum contained 66 per cent of moisture, and in both it had increased to 73 per cent, although no rain had fallen. I will close my observations on the climate of this part of California by a few general remarks.

The data, as far as they go, show that the temperature of the winter months is about the same as that of Rome, without being subject to such variations as are experienced in that climate. Another advantage also which it possesses over the climate of Italy is, that here the rains are always accompanied by warm winds, whilst at Rome the atmosphere is frequently exceedingly cold and chilly in rainy weather. As before stated, I believe that the temperature of the winter 1850–51 was below the average. The temperature has certainly been milder during the present winter; the thermometer has not been lower than 30°, and at that point but on one occasion. During the

summer months the weather is most agreeable; for notwithstanding the high temperature, the constant breeze and the dryness of the atmosphere prevent the system from being oppressed by the heat; whilst the wet bulb thermometer ranges from 60° to 70°, even during the hottest part of the day, there is no danger of the human frame, with its large evaporating surface, being injuriously affected by heat. The only period at which the heat is felt oppressive, is in the months of September and October; a temperature of 80° will produce more inconvenience here than a temperature of 96° in the month of July, on account of the difference in the hydrometric state of the atmosphere.

These observations regarding the climate of this country will apply only to the valleys of the Sacramento and St. Joaquin, or the district comprised between the Sierra and the coast range; and as a short notice of the topography of the valley may be useful, I will, before commencing any remarks on the diseases, give its general outlines. The valley extends a distance of about five hundred miles north and south, varying in breadth from forty to eighty miles, from the lower hills of the Sierra to the coast range of mountains, the west of Sierra being from sixty to one hundred miles farther to the east. Through the valley run the Sacramento, coming from the north, and the San Joaquin from the south. These two rivers drain the waters from the western slope of the Sierra, and from the eastern slope of the coast range. They find their way to the ocean through a considerable break in the coast range. The rivers are bounded on each side by extensive flats, subject to annual overflow, and forming an immense extent of marsh land; these flats are intersected in all directions by extensive sloughs and lakes, which frequently have no communication with the river except at the time of high water; in fact, as a general thing, the immediate banks of the river form the highest part of the country, so that when the waters fall after an overflow, a very large extent of country is left undrained, from which the stagnant waters are gradually dried up by evaporation under the rays of a powerful sun. At the time of writing this, the water is covering an extent of country ten or twelve miles in breadth, and in some places much broader. The soil of the valley is a fine alluvium, in some parts sandy, in others composed of tenacious clay. These superficial layers repose on alluvial strata, which, being generally gravelly, allow, I believe, the water to drain off to some extent, although there is always a very large surface from which it disappears but by the slow process of evaporation. The short time during which I have been practising in the Sacramento would not justify me in going into any details, or attempting any generalizations on the diseases of this climate. I propose merely to make a few observations on some of the cases that came under my care, and I have appended a list of the cases admitted into the State Hospital in this city, although that institution receives by far the greater part of its inmates from other portions of the State.

During the months of October and November, 1850, the principal diseases were dysentery and diarrhœa; 85 per cent of the cases I attended during these months, were of that nature. The dysentery was of a very untractable character, wearing the patient down by frequent bloody discharges, and even when checked being constantly reproduced. It was very fatal; in the absence of any positive data, I believe 30 per cent of those attacked died. The great mortality was not so much owing to the virulence of the disease itself, as to the peculiarly unfavorable circumstances in which those attacked by it were placed. By far the larger part of the sick, probably 90 per cent, consisted of emigrants, who had just crossed the plains, having accomplished a journey, which, at all times fatiguing, was in the year 1850 attended with the most trying circumstances. By far the greater number of emigrants who arrived here in the autumn had not only been broken down by fatigue, but

had been forced to subsist on a short allowance of food, and that frequently of a bad quality. Under these circumstances it is not surprising that the first opportunity that was afforded them for satisfying their appetite should have been made an occasion for overloading the stomach, and thus producing diarrhœa. The sudden change from the dry, bracing atmosphere of the interior of the continent and the mountains, to the comparatively heavy, warm air of the valley, exerted a most depressing effect on the system. On this point I can myself testify; for although without any apparent sickness, yet for the first three weeks after my arrival in the country, from crossing the plains, I was so prostrated that I could lie on my bed during the whole day, without the slightest energy, either physical or mental, and many of my friends were affected in the same way. Disease, I believe, is often brought on by men attempting to work while in this state of prostration. The diet, also, was a fruitful source of disease, not only as regards its quantity, but even its quality. The only fresh meat to be had was beef, and this was generally fried, or rather boiled in rancid lard; the flour was to a great extent damaged, and the butter and salt meat were all more or less rancid. I state these facts to show, that although diarrhœa and dysentery prevailed here to so great an extent, and so fatally, during the fall of 1850, the causes of its ravages are to be looked for principally in the unfavorable circumstances in which the population was placed, rather than to any malarious influence. But not only were these circumstances fruitful sources of disease, but they presented an almost insurmountable obstacle to recovery, even when the more violent symptoms had been subdued. There was no such thing known here as that valuable hygienic remedy called nursing. From the toast water of the sick room your patient had to go back to the beef, salmon, and rancid grease of the boarding house. There were none of those light and valuable edibles which gradually lead the invalid by a safe path back to his ordinary diet. Relapse after relapse occurred, and it wanted but little assistance from the diarrhœic influence which generally precedes the appearance of cholera, to produce a state of gastro-enteric disease amongst four-fifths of the newly arrived population.

In this state of the general health, the cholera made its appearance about the beginning of November, and never did it fall on a population so prepared to yield to its ravages. Although it is impossible to obtain any accurate data as to the number of its victims, yet I am confident that during the few days at which it was at its height, not less than one per cent of the population was daily carried off by it. There was nothing peculiar in the disease as it occurred in this country; its apparent virulence can be accounted for by the previous state of those attacked. The tables appended, showing the returns from the State Hospital in this city, prove that even during the summer and autumn months there is very little tendency to gastro-enteric disease, at least when the exciting causes above alluded to are absent.

The diseases more particularly characteristic of the winter months are typhus fever, rheumatism, erysipelas and pneumonia. The cases of typhus that came under my care were of a mild form, although generally lasting from fourteen to twenty-one days. In none of the cases which I treated did any unfavorable symptoms present themselves. The treatment was purely expectant, with the exception of quinine or bark, and stimulants towords the latter period of the disease. In two instances, the rose-colored spots were noticed on the sixth day of the disease. From the returns of the State Hospital it would appear that this disease was prevalent duriug the autumnal months of last year, and the mortality was 39.7 per cent, a decidedly large mortality. There were only three cases admitted from the city, the others being brought in from the country.

The cases of pneumonia showed themselves soon after the first rains, and

could generally be traced to exposure to wet and cold; they were very amenable to treatment. But three cases came under my care, and in every case the patients made a rapid recovery— the time of treatment averaging nine days.

Rheumatism was one of the most common diseases during the winter months of '50 and 51, attacking principally those who had been previously affected by diarrhœa and dysentery; and in these it generally presented itself with very troublesome, and in fact alarming symptoms. The disease was generally of a low type, and in every case that came under my care, was accompanied by inflammation in the muscles, or at least in the aponeurosis; this inflammation was the principal and most distressing symptom. In two of these cases suppuration took place; in one subject in the calf of the leg, under the gluteus maximus and under the trapezius; and in the other in the calf of the leg. In three other cases that I had treated, these swellings were present in the calf of the leg, and although I was led strongly to suspect that pus had formed, yet they recovered without any abscess being opened. Pericarditis existed in three cases, but notwithstanding the unfavorable character of the general disease, this complication did not present itself in a severe form. One of the cases terminated fatally—that in which the matter had formed so extensively. I believe the case would have been saved had it remained under my care; I was, however, superseded by a herb doctor, whose first care was to bind up the abscesses as tightly as possible, to prevent the discharge from weakening the patient. The treatment adopted was the administration of colchicum and quinine, and sometimes sulphate of iron; recovery was slow; the average time of treatment being forty-one days. I had an opportunity of seeing some other cases in which the same symptoms showed themselves. Rheumatic affections are not so common amongst the mining population as we might be led to expect from the exposure to which they are subject, working, as too many of them do, for hours at a time in the water, and also frequently exposed to rain. But very few cases of this disease have been admitted into the Hospital during the past year, and this is probably owing to the absence of diarrhœa and dysentery, which seem to exert a peculiar influence in predisposing the system to rheumatism.

Erysipelas is a disease which has been extremely fatal in the country during the last twelve months; but it existed to a greater extent in the mountains than in the valley. During the course of last winter five cases came under my care; in all of these the head was the only part involved, with the exception of one, in which the inflammation spread to the shoulder and chest; three of these cases occurred in the same house, and the first case that showed itself was in a man who had been living in another house in the country, where there was a case of the disease. The most striking peculiarities of these cases were the inflammation of the mucous membranes communicating with the natural openings, and the absence of that amount of general and cerebral disturbance which so often renders erysipelas of the head a formidable disease. In every case, the mucous membrane of the mouth and fauces was inflamed; in four cases there were ulceration and discharge of fetid pus from the nostrils: in three cases the palpebral conjunctiva was severely affected; and in four of the cases there was discharge of pus from the ears. And yet, notwithstanding these symptoms, the cases in which they presented themselves were attended with as little cerebral and general disturbance as any I have ever seen, in which the head was involved. The fever never rose high, nor was depletion required in any case. A dose of blue pill and castor oil, and then quinine, combined with small doses of blue pill and rhubarb, was the treatment usually adopted. The only case that terminated fatally was a man of intemperate habits, who died from a complication of the disease with pneumonia. The average duration of the treatment was nine days. The disease is

of frequent occurrence in the mountains, and I have seen many cases of it during the summer. The localities where it mostly prevails are the deep valleys in the mountain districts, which are shut in on all sides by high hills, where the extremes of temperature are great, and the air has a tendency to become stagnant. In some of these places it has proved extremely fatal, the mortality being more than fifty per cent. This large mortality is to be accounted for partly by the intemperate habits of many of the subjects attacked by it, but also in a great measure, I believe, from the too general use of calomel, and from not giving quinine and tonics at an early period. In two of the cases that came under my care, granular conjunctivas remained as a sequela of the disease, and I have seen some very severe cases of this affection that have been produced by it.

Diseases of the air-passages are extremely rare. A mild form of catarrh showed itself, apparently in an epidemic form, in February, 1851, and the same affection is occasionally met with during the winter months; but I have not yet seen a case of acute bronchitis, and the experience of many of my medical friends is to the same effect. This is probably owing to the absence of cold dry winds during the winter months. Very few cases of phthisis are met with, considering the circumstances in which so large a portion of the population is placed, and which in other climates could not fail to develop the latent germs of this disease which exist in so many individuals. Speaking from my own limited experience, it is more amenable to treatment here than in any other country in which I have practised. Two cases of the disease in an early stage have come under my care, occurring in individuals who had a strong constitutional tendency to it; in each case hæmoptysis to some extent had occurred, and that partial solidification of the lung, indicated by the prolonged rough expiratory murmur evidently existed. One of these cases has apparently quite recovered, the individual having enjoyed good health for some months. The other case is improving, having gained six pounds in weight during the last month; cod-liver oil, with quinine and iodide of iron, has been the remedy used It is an interesting fact that in neither of these cases was any marked symptom of bronchial irritation present, and I believe the exciting cause of the disease had, in each case, been improper diet, or living too long on salt meat, which was probably rancid. A better diet was ordered, and strictly adhered to; and it is the advantages derived from this, and also from the complete absence of any source of bronchial irritation, that have rendered the disease so amenable to treatment. Many cases prove fatal, as well here as elsewhere; but I believe that the climate of this country presents advantages such as are not to be found in any other part of the civilized world, for the treatment of phthisis in its early stages.

The diseases arising from malaria might be expected to be very prevalent in the valley of the Sacramento, containing, as it does, thousands of acres of land subject to annual overflow, and from which there is no escape for the water except by the slow process of evaporation, under the rays of an intensely hot sun; yet, notwithstanding this, cases of intermittent and remittent fever are comparatively rare in this part of the valley. A few mild cases of intermittent fever occurred in the neighborhood of the city last spring, but they appeared to be confined to low localities, which are situated in the immediate vicinity of stagnant water. I have heard of but two cases of congestive fever, and both of them on low bottoms, near the American River, about three miles from the city. As a general rule, the city is exempt from any of the more violent forms of malarious disease; a few mild cases of intermittent and remittent fevers occur, but they are comparatively rare. The whole number of cases admitted into the hospital in this city, which originated in Sacramento, was twelve during the last summer and autumn. But although the influence of malaria does not show itself by producing any of the more marked forms of disease by which

its presence is usually manifested, yet we have constant indications of its existence, by the character it impresses on almost every form of disease occurring in this locality. It would appear, that when in the usual state of health, there are very few individuals in the community who are susceptible to its influence, but when the resisting powers become weakened by any form of disease, the malarious influence then makes itself felt, modifying, to a greater or less extent, a very large amount of the cases of other diseases. This influence it is often difficult to detect, it is not manifested by any marked symptoms of intermission or even remission, but can only be suspected from the apparent obstinacy of the disease, and from the effect of treatment. Dysentery, diarrhœa, erysipelas, rheumatism, chronic gastritis, and even pyrosis, cases in which the remedy might appear to be strongly counter-indicated, were benefitted by the use of quinine, and in fact would not yield without it. This modified existence of malaria, in a locality where the elements from which it is generated surround us on every side, is probably to be accounted for by the dryness of the atmosphere during the hottest months in the year; to the moderate temperature that generally prevails when the amount of humidity in the atmosphere would favor its propagation or effusion; to the prevalence of constant breezes during the summer months; and to the coolness of the nights, which conduces to refreshing and invigorating sleep.

As regards the number of cases of bilious remittent reported to have been admitted into the Hospital, I believe they were for the most part cases of the mildest form of remittent fever. I understand from many medical gentlemen who practised here during the summer, that they did not see a single case of bilious remittent, and the short time the patients remained in the hospital—on an average eight days—would indicate a very mild form of remittent fever. From the most accurate information I could acquire, (for no records are kept) the greater number of the cases came in from the upper part of the valley, more particularly above Marysville. Scrofulous diseases are rarely met with, and I believe the climate will be found to offer the most favorable conditions for the prevention and cure of this class of diseases.

Diseases of the skin are rare; eczema is the only one I have met with. Onychia is common among the mining population, and slight wounds on the hand are apt to prove troublesome; this is probably owing to the nature of the diet, for even when wholesome articles of food can be obtained, they are generally spoiled by boiling them in rancid grease. The quantity of rancid grease and salt meat eaten in this country, with apparent impunity, offers but a poor confirmation of the views of Liebig, of the injurious effects of partially decomposed substances on the animal economy.

Diseases of the nervous system are not very common, although I believe forming a larger proportion in comparison to the whole amount of disease than in the Atlantic States. A very large number of cases of insanity have occurred, thirty-eight insane patients having been received into the Hospital from May to December. This prevalence of insanity is undoubtedly owing to moral more than to physical causes, although the extreme dryness of the atmosphere during the summer undoubtedly renders the nervous system peculiarly excitable. There is one fact with which I have been struck whilst travelling in the mountains during the last summer, viz: the rare occurrence of coup-de-soleil. It might be supposed that the miners would be peculiarly liable to this disease, exposed as they are for hours to the burning rays of the sun, and frequently with their feet in ice-cold water; yet I have never seen or even heard of an instance of sun-stroke, although the rays of the sun are certainly more powerful here than in most of the Atlantic States.

The climate in the mining regions very much resembles that of the valley, and it is necessary to ascend some distance in the mountains before any marked difference is noted, even in the temperature. I have no correct data on this

point, but the state of vegetation would indicate that there cannot be much difference in the temperature. When I left Placerville (about sixty miles south of Sacramento) three weeks since, or in the middle of February, the young shoots of the buckeye were three inches long. The masoneeta (a species of erica was in full bloom. The humming birds were building their nests, and I believe vegetation was quite as forward, and perhaps more forward, than in the valley. This was at an elevation of two or three thousand feet above the valley.

The mining regions are generally extremely healthy, with the exception of those localities which are situated in the deep valleys, surrounded on every side by high hills. Here the extremes of temperature are very great. As a general thing the nights in summer are calm, and the great radiation that takes place under a perfectly clear sky, rapidly cools the layer of air in direct contact with the ground. This cold air can be felt running down every gulley and ravine leading into these deep hollows, and if there is not any large opening by which it can drain off, it accumulates and fills the valley with a body of dense, stagnant air, the temperature of which descends very low before morning. In such places, typhus fever and erysipelas were very prevalent during last summer, and were also very fatal. With this exception, the mountain regions are very healthy; and it is a striking fact, in confirmation of this, that exposure can be borne here to almost any extent with impunity. During ten months in the year the shelter of a tree is all that is required. When travelling in the mountains, I always slept in the open air, except when it rained, and I never experienced the slightest inconvenience from so doing, nor have I ever seen any instance in which bad results followed, except in wet weather. This is very different from what we are taught to believe as regards exposure to the night air in the Atlantic States, with how much reason I cannot pretend to say, never having tried the experiment. The general health of the community is, I believe, of a higher character than in any other part of the Union; the complexion here generally assumes that ruddy tint, which is considered, and justly, as the most unequivocal sign of a high state of health in individuals of the Anglo-Saxon race. A residence of a few months in the country is almost always accompanied by a marked increase in weight, and there can be no doubt but that the climate is conducive to fertility in the female. Although I may expose myself to the charge of enthusiasm as regards the climate of this country, yet I am but expressing my candid opinion when I state that I believe California will be found more conducive to the highest physical and intellectual development of the Anglo-Saxon race, than any other part of the globe. There is not a day in the year in which the powers of the mind or of the body are enervated by heat or numbed by cold. And when the agricultural resources of the country shall have become developed, and the swamp lands reclaimed and brought under cultivation, I believe that every external influence detrimental to the preservation of health, will be reduced to a minimum.

Table showing the number of cases of the principal diseases admitted into the State Hospital, Sacramento City, with their average mortality and duration of treatment.

	June.	July.	August.	September.	October.	November.	December.	Total.	Number of deaths Pr. ct.	Average time of treatment.	Number of cases in Sacramento.
Intermittent fever - -		6	6	11	12	4	6	45	1.2	7	5
Bilious remittent fever -	4	6	21	21	38	18	8	116	4.3	8	6
Congestive fever - -		2		2				4	5.00	6 days	1
Typhus fever - -			1	4	12	5	11	33	39.7	13	3
Continued fever - -	3	2	2		1	2		10		9	1
Erysipelas - - -			1	4	3	1	2	11	18.1	7	
Diarrhœa, - - -	3	1		1	1	3		9			
Chronic diarrhœa -	4	3	2	3	5	3	1	21			
Dysentery - - -	2	1	1		1	2	6	13	56		
Acute bronchitis - -						3		3	54		
Chronic bronchitis -	1		2		1			4			
Pneumonia - - -							5	5	100		
Pleurisy - - -	1					1		2			
Acute rheumatism -	9	3	2					14			
Chronic rheumatism -	3	2	5	7	4	3	2	23			

Sacramento City, March 14, 1852.

(*American Jour. Medical Sciences.*)

II.—*On the use of Yeast in the treatment of Boils.*

BY DR. MOSSE.

I have just read a paper on the prevailing furunculoid epidemic, delivered at the Epidemiological Society, by Doctor Hunt, at the house of Doctor Babington.

These obstinate boils are equally as painful to bear as obstinate to cure, hardly yielding to any treatment by ordinary medicinal means, for no sooner do you succeed in getting rid of one ere another appears, thus baffling and setting at defiance most remedies.

During a period of eight years and more, being in practice in the West of England, where these annoyances rather raged, and were known by the name of "pinswills," I was induced to try the efficacy of common yeast, (having failed to give relief in general modes of treatment) in doses of a tablespoonful with some weter, three times a day, for an adult, and smaller doses for children.

I have now practised in this town nearly six years, and have had frequent opportunities also here of witnessing the good effects of yeast in these troublesome affections, easily consummating a rapid and complete cure without further recurrence, and by a most simple remedy, within reach of all.

Should this be deemed worthy of observation, perhaps a place in the Lancet may be instrumental in doing good.

(*Lancet for September*, 1852.)

III.—*Suit for Damages for alleged want of Skill.*

This was an action instituted before Lord Chief Justice Campbell, for compensation for damages alleged to have been sustained through want of skill and care on the part of the defendant, who is a surgeon in practice in the town of Cowpen.

Mr. Watson, Q. C., and Mr. Blackwell, appeared for the prosecution, and Mr. Overend and Mr. Davison for the defence.

It appeared that James Smith, a youth about thirteen years of age, the son of the plaintiff, who is a pitman, in the early part of December last accidentally fell from a limekiln, and sustained a compound fracture of the thigh bone. On being taken home, Mr. Lynch, the defendant, was sent for, who set the broken bone, and applied splints in the usual way. A short time afterwards the youth had a succession of fits, and the bones were displaced. The operation of re-setting was performed, but the case which did not appear to present any formidable difficulty in the first instance, in a short time assumed a more serious aspect. Mr. Lynch attended his patient daily, and also obtained the assistance of and co-operation of Mr. Cockburn, another medical practitioner in the locality. The mother and nurse of the youth, however, seem to have become alarmed at the symptoms presented, and discharged Mr. Lynch from attendance, and called in Mr. Mann and Mr. Ward, who, on examination, decided that amputation was necessary in order to save the life of the patient. Before operating, however, they deemed it prudent to confer with Mr. Fife, of Newcastle, whose professional skill and scientific knowledge, the judge remarked, on sending the case to the jury, would seem to be hereditary, and whose experience enabled him to decide in the most difficult cases. Under Mr. Fife's direction amputation was performed, and then it was discovered that the part of the bone between the fractures had ceased to possess vitality, and therefore never would have united.

These several parties were examined on behalf of the plaintiff, the examination being directed to show that the splints were not such as ought to have been applied, and that the treatment of the patient from the first was improper, whereby amputation was rendered necessary; but on all these points the evidence failed to support the case, it being admitted, on cross-examination of the witnesses, that the splints were similar to those used in all the great hospitals of the kingdom, and that it was the duty of the surgeon to endeavor, if possible, to preserve the limb, and only resort to amputation when there appeared no other way of saving the patient's life.

The learned judge, on hearing the evidence of the medical witnesses remarked, that in his opinion the plaintiff had failed to make out his case, for instead of proving that there had been negligence and want of skill on the part of the defendant, he proved the contrary. He left that, however, to the consideration of the jury, and remarked that if they wished to hear the counsel for the defendant, they might do so, but for his own part he thought that quite unnecessary.

The jury, after laying their heads together, determined upon hearing the defendant; after which,

His Lordship endeavored still farther to elucidate the case by a luminous though brief address. The jury then, without retiring, returned a verdict for the defendant. (*Ibid.*)

IV.—*On an Hospital for Epileptics.*

BY MARSHALL HALL, M. D.

I have long meditated the institution of an hospital for the poor afflicted with epilepsy. I have hitherto been deterred from prosecuting the idea by the reflection that it would be injurious to those liable to seizures of this direst of chronic maladies, to be witness to the frightful scenes presented by their companions in this misfortune. I believe I have, to a great degree, obviated this objection.

Inorganic epilepsy occurs in two forms; the first *epilepsia mitior*, or the slighter epilepsy; the second the *epilepsia gravior*, or, the graver epilepsy.

I believe the slighter epilepsy depends on a condition of the muscles of the neck, which I designate *trachelismus*, and by which the flow of blood from the brain and spinal marrow is impeded. This is only to be prevented by strict and persevering attention to avoid its exciting causes, which are, in general terms, the emotions and the irritations; the latter being chiefly dental, gastric, enteric, uterine, etc.

But the severer epilepsy depends upon another condition—that of the larynx termed laryngismus. As trachelismus impedes the flow of blood from the brain, so laryngismus impedes the ingress and egress of air to and from the lungs, especially the latter. The larynx is, in fact, more or less closed, and upon this closed larynx violent expiratory efforts are made. These events induce, in their turn, still greater impediment to the flow of blood from the brain and from the upper part of the spinal marrow, and as a further consequence, all the direr forms and effects of this dire disease, viz., convulsion, convulsive falling, or rather dashing to the ground, etc.

Now, the influence of this laryngismus, and all these dire effects are, I believe, obviated by Tracheotomy.

The epileptic patient on whom tracheotomy is effectually performed, is preserved from all that is included in the graver form of the disease; and the patient may *fall*, but he is not thrown down violently, nor does he become affected with deep lividity of the countenance, convulsion, foaming, etc. He no longer presents the frightful spectacle to which I have adverted in the first paragraph of this lecture. The objection to the institution of an hospital for these afflicted persons is therefore removed.

Having made these few preliminary remarks, I proceed to state my views in the suggestion that the duty of establishing an hospital for epileptics becomes specially imperative upon the humane and the charitable.

Epilepsy is indubitably the direst of human maladies. It dashes the afflicted patient with convulsive violence to the ground, and exposes him to the danger of falling—down stairs—into the fire—or water—or under carriage wheels, and to the infliction of terrible wounds, injuries, burns, etc. It incapacitates him for any employment. It may impair his faculties or cripple his limbs. Not unfrequently the attack passes into a fit of mania; occasionally it proves fatal, by inducing a state of apoplexy, or, still more speedily, from its violence, by spinal syncope. The ancients designated it the Herculean malady!

The epileptic becomes, then, from his peculiar helplessness and danger, the object of our peculiar care. It is his cause which I plead.

Happily, besides the care which may be taken of these afflicted persons, much may, as I believe, be done by care, by regimen, by medicine, and by new modes of treatment, to mitigate, if not to remove, their dire calamity. Each seizure is induced by one or more of a series of exciting causes, some of

which, and these the most usual, may be avoided under judicious and watchful management.

The severe forms of the disease depend on the condition of the respiratory apparatus which I have described, and which may be obviated by a simple operation. By means of this operation we are enabled to avert the violence of the malady. We cannot, by *it*, avoid the cause or causes, or their first effects, the slighter forms of the affection; but we *can* avoid the severer, the graver, the direr consequences of these causes. We can preserve the patient, as I have stated, not from *falling*, indeed, but from being dashed to the ground violently and convulsively; we can secure him from *convulsion*, and all its dire effects on the mind and on the limbs, and save him from mania, amentia, or paralysis.

Nay, we can, in a certain number of cases, yet unknown, even cure the patient; for, by avoiding the severe forms of the disease, we obviate the susceptibility to future attacks, induced and left by them. One patient, who used to experience a severe attack twice in every week, has had no attack whatever during twelve months. Another epileptic, from hereditary epilepsy, during four and twenty years, having the severest attacks frequently, and falling dangerously on the fender, or into the fire, has, during four months, had the milder attack only.

That we may take care of those poor patients; that we may change their malady from the direst to a comparatively, or even to a positively mild one; and in a certain number of cases, even cure it entirely, is certain. Who will not lend a helping hand in so good a work?

My project is to bring those afflicted with epilepsy under one roof, for shelter, for protection, for safety; to place them under a systematic, gentle course of medicine, of diet and regimen, free from stimulus, of exercises free from all effort or fatigue, of occupation free from excitement or emotion; to arrange their bed so that the head may be high; to clothe them, and adopt measures for keeping their feet warm and dry, etc.; for such are found to be important measures in the treatment.

Having thus done all that kindness and art can suggest for the solace and cure of our patients, the next point is to ascertain in those whose cases prove fatal, what are the morbid appearances on post mortem examination. These appearances may not, as is too generally supposed, be the disease, or the cause of the phenomena, but the effect.

Let us suppose that we meet with congestion, or ecchymosis, or a clot of blood, or effusion of serum; or even softening; or, in chronic cases, induration. Are these the disease, or the cause of the disease? Possibly not. They are even probably the effect of the violent congestion to which the nervous centres may have been subjected during the paroxysms. Without attention to this living pathology, even the morbid anatomy may lead to erroneous conclusions.

Why should epilepsy, more than apoplexy, be treated empirically? What should we say to the proposition to trust the treatment of apoplexy to the sulphate of zinc, the cotyledon umbilicus, etc? Why should we act less rationally in the case of epilepsy?

The pathology of apoplexy and the pathology of epilepsy should be equally investigated, and upon this pathology the treatment should be founded. I would especially recommend, that whilst every exciting cause is removed, and the general health carefully maintained, the pilula hydrargyri be given for the removal of organic effects, and the strychnia for the diminution of the susceptibility of the nervous centres, equally left by the epileptic seizures.

The real value of particular remedies is also still entirely unknown, notwithstanding the occasional publication of success.

In an hospital for epileptics, the truth in regard to these topics may be ascertained; whilst we give the patients the advantage of every care, of every aid, of every remedy.

So much can scarcely be said to be accomplished by any of our other hospitals.

It is not, indeed, yet known what may be accomplished for the epileptic by an extreme and sustained attention—

1. To Diet and Regimen, excluding all Stimulants and Indigestible Substances.

2. To the Secretions and Excretions.

3. To security against all Emotion and Excitement.

4. To Exercises and Occupations, avoiding all Effort and Fatigue.

5. To Clothing, and espicially to warmth and dryness of Feet.

6. To a raised Posture during Sleep.

I mean such a degree of attention to diet and regimen, to the secretions and excretions, etc., etc., and so sustained as has never been attempted heretofore.

The great difficulty, in the treatment of epilepsy in private practice, is the impossibility of securing the necessary degree of attention to all this regimen. In an hospital this will be readily accomplished. It must be the great object of the institution.

In this manner I am persuaded that many more poor patients will recover from epilepsy than rich.

How instructive will be a series of statistics on this subject! The real value of regimen; the real value of remedies; the real value of tracheotomy —and the real value of post mortem appearances will then become well known.

The great difficulty, in regard te the hospital, will be that of the selection of cases. Our expectations must be reasonable. Every one knows how little can be expected in the congenital, the hereditary, the inveterate cases—not from the violence of the seizures, which may be averted, but from the organic condition, cause, or effects of the malady.

In such cases, the care of the afflicted patient must be our chief object. But in very many others, I am persuaded, as I have stated, that we ought not to despair of cure.

I conclude this outline with the following sketch:

1. The emotions; 2. The irritations—induce spasmodic trachelismus.

Threatenings of 1. Apoplexy; 2. Epilepsy; or Congestion of 1. The Cerebrum; 2. The Medulla Oblongata; with 1. Paralytic, or 2. Spasmodic Laryngismus; and 1. Stertor and augmented Coma; 2. Convulsion and its effects, superseded by Tracheotomy.

Recapitulation. 1. The cases of apoplexy and epilepsy of inorganic origin have not before been duly discriminated and investigated.

2. Their causes are the emotions and the irritations; the former acting directly, the latter diastaltically—

3. First, on the muscles of the neck, and

4. Secondly, on those of the larynx.

5. In the former case the affection designated trachelismus is the cause of the compression of the venous network of the neck, of impeded return of blood from the encephalon, and of

6. The milder forms or threatenings of apoplexy and of epilepsy.
7. In the latter case the affection is designated laryngismus, and it is of two kinds, viz:
8. First—Cerebral and apoplectic and paralytic, with partial closure of the larynx, assuming the form of laryngeal stertor, chiefly, but not entirely, in inspiration; as in the experiments of Legallois.
9. Second—Spinal and spasmodic, with still greater closure of the larynx, and with a still more impeded respiration, and especially of expiration.
10. The former of these is associated with apopletic coma.
11. The latter is the essential condition of convulsion, and its effects.
12. The effects of trachelismus would be superseded by venesection.
13. The effects of laryngismus are superseded by tracheotomy.
14. By this measure, paralytic laryngismus, or stertor, and its effects, or the apoplectic state, when of inorganic origin, is either removed or mitigated.
15. By this measure convulsion, with its effects, is prevented.

I trust, that whilst convulsion is thus prevented, all its dire effects will be obviated; and that one of the susceptibility to returns, may itself subside, and the dire disease be entirely cured.

I conclude this recapitulation by observing that—

1. The difference between the apoplexia mitior and the epilepsia mitior, is the differenee between obscure and evident trachelismus.
2. The further difference is that between psychial and spasmodic symptoms, or that between affection of—
First—The cerebrum, and of
Second—The medulla oblongata.
3. The difference between the apoplexia gravior and the epilepsia gravior, is that between—
First—Paralytic, and
Second—Spasmodic laryngismus.
4. Apoplexy, when extreme, is attended by convulsion; extreme epilepsy induces apoplectic coma, etc.
5th. Both may terminate fatally—
    1. Without post mortem appearances.
    2. With congestion only.
    3. With the effects of this latter, viz: Ecchymosis, rupture, serous effusion, softening.

Conclusion.—The terms trachelismus and laryngismus, which I have adopted in these pages, when viewed in connection with their exciting causes, the modes of action of these, first on the muscles of the neck and the larynx, then on the venous network of this region, and then on the nervous centres, contain whole volumes of living Pathology.

This living Pathology I recommend for further cultivation, in the place of that mere *caput mortuum* presented in post mortem, or it might be designated post morbum appearances.

I also recommend that this Pathology be pursued in a special manner in our private practice. It never can be adequately investigated in the patients who resort to our hospitals, whose cases are chiefly those of organic origin, or involving organic disease, as effects of the previous trachelismus and laryngismus.

I would finally observe, that although I have treated of trachelismus and laryngismus as distinct, and of apoplexy as cerebral, and of epilepsy as spinal, generally, yet each of these involve the other. Trachelismus includes the larynx; laryngismus adds to trachelismus and its effects. Apoplexybeg in-

ning with trachelismus is spinal; for trachelismus is the result either of direct or diastaltic spinal action; epilepsy, in its turn, is cerebral in one of its immediate and many of its remote effects.

The neck, the larynx inclusive, is the medical region in which all these influences meet. By means of the structure and actions in this region, the whole class of the diseases of the nervous centres, of inorganic origin and of paroxysmal form, the threatenings of apoplexy and of epilepsy, are explained; and I trust we may no longer say, with Esquirol, "Les symptomes de l'epilepsie sont tellement extraordinaires, tellement ou dessus de toute explication physiologique; les causes de cette maladie sont tellement inconnues que"—etc. Indeed, I think that in few diseases are the links of causes and effects, in a rather lengthened chain, so distinctly traced and explained. This has been accomplished by means of the light which has been thrown upon the whole subject of the diseases of the nervous system by our knowledge of the Spinal System. This knowledge is as a torch in the hand of the practical Physician, and the source of all diagnosis in regard to these diseases. Physiology, theory and observation become allies, and lend each other mutual aid.

I trust I may be allowed in conclusion to express a hope, that the suggestions which fill the preceding observations may be received with some degree of benevolence. They are among my last legacies to my noble and exalted profession—noble and exalted, were detraction within its own ranks, and derogatory views on the part of the public, to cease, and its science to be duly appreciated. In Medicine alone is discovery a misfortune to its author.

(*Ibid.*)

V.—*Detection of Mercury in the body of a person dying of Mercurial Cachexy*

BY M. GORUP-BESANEZ.

The subject was a woman, who for 25 years was laboriously engaged in silvering looking-glasses, but who, from the convulsive tremors that were induced, had been obliged to desist from her occupation for a year prior to her death. The chemical results obtained by following the processes of Fresenius and Babo, were as follows: The lungs and heart gave no traces of mercury, a very small quantity was detected in the liver, and none in the bile. A doubtful precipitate was thrown down upon the gold plate by the brain, while the spinal column presented no traces. That any remains of it should be found after a year is remarkable, and is confirmatory of other facts, proving how long certain metals, e. g., antimony, may be found in the economy. That the liver was the only organ in which it could then be detected, confirms the doctrine that metallic poisons are usually found longest in that region.

(*Chem. Gaz.—Buchner's Rep.*)

VI.—*On the Induction of Abortion in the Vomiting of Pregnant Women.*

BY MM. DUBOIS AND STOLTZ.

During a recent discussion at the Acadamie de Medecine, M. P. Dubois stated the results of his experience in relation to obstinate vomiting in pregnancy. In proof that this is oftener a more dangerous occurrence than is usually supposed, he stated, that in the course of thirteen years he had met with twenty cases in which it has proved fatal. That obstinate vomiting is but the exaggeration of the natural sympathetic vomiting of pregnancy, and not due to any special lesion, is proved by the facts, that at the autopsies nothing is found, and that when the process of gestation becomes arrested, whether spontaneously or artificially, the vomiting is ordinarily put an end to, although the woman may not be delivered until several days after, of a dead child, and may yet die of the effects of what she has already undergone. M. Dubois refers to several cases in which the women, apparently at the point of death, were saved by the spontaneous death of the fœtus, this being expelled only some time afterwards. In respect to the question of how far artificial interference is attended with the same result, he furnishes notes of the four cases in which he has employed it. Three of these cases died and one recovered; this last being added to other cases on record, making the number of recoveries he is aware of 7, and probably 9. In all the cases, however, whether fortunate or not, the vomiting was suspended by the operation. The difficulty is, indeed, to fix the period at which this should be resorted to; for it is the natural desire to delay this as long as possible, which leads to the fatal result; the woman dying, in fact, from the exhaustion and prolonged abstinence which the vomiting has induced, prior to the operation for arresting it being undertaken. M. Dubois lays it down as a rule, never to perform it when the signs of extreme exhaustion are present, as evidenced by considerable loss of vision, cephalalgia, comatose somnolence, and disorder of the intellectual faculties. On the other hand, we should also abstain from operating when vomiting, though violent and frequent, still allows of some aliment being retained; when the patient, though wasted and feeble, is not obliged to keep her bed; when the suffering has not yet induced intense and continuous febrile action; and when other means still remain untried. In the first case, we should not save our patient, but perhaps accelerate her death, and bring discredit to the operation; while in the other, we should sacrifice a pregnancy that might have gone on to the full time. It is, therefore the intermediate period that should be chosen, and this is characterized by the following signs:

1. Almost incessant vomiting, by which all alimentary substances and sometimes the smallest drop of water, are rejected.
2. Wasting and debility, which condemn the patient to absolute rest.
3. Syncope, brought on by the least movement, or mental emotion.
4. A marked change in the features.
5. Severe and continuous febrile action.
6. An excessive and penetrating acidity of the breath.
7. The failure of all other means.

But even within this period, which is of variable duration, the opportune moment must be chosen. This seems to have arrived, when the inefficacy of the most approved treatment has been proved, when fever is found to persist, and the debility and wasting of the patient are making sensible progress. The attendant should now declare that the operation is indicated, leaving to the patient and her friends the duty of deciding upon its adoption.

Professor Stoltz, of Strasburg, has published a highly interesting communication upon this subject, in which he also states his belief that vomiting during pregnancy is much oftener fatal than is usually supposed. He relates four cases, from among others, that have come under his own notice. In three of these death occurred, and life was saved by the operation in the fourth, although the case seemed hopeless. M. Stultz lays great stress upon the operation being performed in good time, because if we wait until the effects of the sympathetic reaction constitute in themselves a serious disease, the evacuation of the womb does not induce a cessation of these, and may, in certain cases, even hasten death—life, so to say, hanging upon a thread. It is undoubtedly difficult to say when the moment has arrived that we can no longer hope for benefit from nature or therapeutical agents. But may not the same observation be made with regard to many important surgical operations? It is true that neither spontaneous nor artificial abortion always saves life in these cases; but the former usually occurs only when the woman's powers are hopelessly exhausted, and the pain and discharge consequent on the delivery may expedite her end; the same result not being infrequently seen in severe fever. Some practitioners have expressed themselves very feelingly against sacrificing the child in these cases; but there is a great inconsistency on the part of those who do so, and who still advocate the operation in the case of narrow pelvis. A woman who has undergone artificial abortion for obstinate vomiting, may hereafter (and these cases mostly occur in primiparæ) give birth to a living child, which can never be the case in one who has so narrow a pelvis as to call for the induction of abortion rather than of premature labor.

(*Bulletin de l'Acad.—Gaz. Med.*)

VII.—*On the Removal of the Obstructing Mucus in the Suffocating Bronchitis of Infants.*

BY M. VALLEIX.

In an instructive case which he relates, M. Valleix draws attention to the importance of mechanically clearing away the mucus from the throats of infants, in the suffocative paroxysms observed in the generalized bronchitis so fatal to young children. As soon as the child assumes a violaceous appearance, and suffocation seems imminent, the little finger should be passed along the back of the tongue. The child, closing its jaws, resists strongly, but the finger should be gradually advanced. When it reaches the isthmus, the child opens its mouth, and we should then pass on behind the epiglottis, so as to bring the pulp of the finger several times over the orifice of the larynx. This produces efforts at coughing and vomiting, and the mucus is expelled from the air passages, a part being drawn out with the finger, and the rest swallowed. The child appears after this little operation much flushed and agitated, and almost suffocated; but it soon becomes calm, until renewed signs of asphyxia call for a repetition of the procedure. In the case which M. Valleix relates, apparent death after one of these paroxysms was successfully treated by artificial respiration, the employment of which he strongly recommends in similar cases.

(*L'Union Medicale, No.* 48.)

VIII.—*On an Epidemic of Puerperal Gangrenous Vulvitis.*

BY M. CHAVANNE.

During the early part of the cold January of 1850, several of the puerperal women at the Charité of Lyons were attacked, three or four days after delivery, with vomiting and diarrhœa, or with febrile paroxysms and abdominal pains, or slight hemorrhage. These symptoms were followed, in twenty-six cases, by lassitude or prostration, and lowness of spirits, and by the development of œdematous redness of the vulva. In a few cases the disease did not extend beyond this stage, active febrile symptoms becoming, however, developed; but in the great majority, pultaceous plates, resembling Delpech's pulpous form of hospital gangrene, formed on the interior of the vulva and vagina, closely adhering to the mucous membrane. Although their extension became limited in a day or two, they were not separated by the inflammatory process until the end of the first week, or during the second; small, superficial, suppurating wounds being left at the points they occupied, which usually soon healed up, though occasionally degenerating, and becoming covered with the same pultaceous mass.

In four of the twenty-six cases the disease extended to the uterus, and the patients died, having presented all the symptoms of intense puerperal fever, the gangrenous condition of the uterus becoming complicated with peritonitis. No cause could be assigned for the development of the epidemic; both the general sanitary condition of the establishment, and the prior state of health of the patients having been satisfactory. In twenty of the cases the labor was natural; the forceps, however, having been applied eight times; and while the affection seized some of the patients who had very easy labors, others of the inmates, whose cases required active interference, entirely escaped. Besides the four cases above mentioned as having proved fatal, three others of the twenty-six died from metro-peritonitis, without extension of the gangrene. The other nineteen recovered, the gangrene usually soon yielding to tonic regimen and the local use of the strong muriatic acid. A very similar epidemic was observed at Lyons in 1815; and another of the same character has recently been witnessed in Paris.

(*Gazette Medicale, No.* 16.)

IX.—*On a New Mode of Operating in Varicose Aneurism.*

BY M. MALGAIGNE.

The difficulty which usually occurs in operating for this, in securing the two ends of the artery, while the veins are incessantly pouring out blood, induced M. Malgaigne to try a new plan of procedure, by which opening the sac, or the integuments covering it, might be avoided. The case was an aneurism resulting from venesection, performed ten or twelve years before. A small pulsatory tumor existed at the bend of the arm, which caused little inconvenience. The artery was taken up by means of two separate incisions, just below and just above the tumor, and the cure was rapid and complete, so that when the patient was seen seven months afterwards, no traces of the aneurism could be discovered. (*Rev. Med. Chir.*)

X.—*Medicine in Syria.*

Syria, like all the rest of the world, is abundantly stocked with doctors. There are in some of the larger towns European or American physicians, some of whom are thoroughly educated and scientific men. Most of them are connected with some missionary society, or the Turkish or other government. The London Jews Society has the accomplished Dr. M'Gowan and Mr. Sandford in its service, at the hospital in Jerusalem. The American Board of Missions has a physician in Sidon, another in Beirut, and a third at Mosul. These gentlemen have taught a young Syrian, who is quite respectable as a physician. The Associate Reformed Presbyterians have a physician at Damascus. There are some Jesuit physicians in the land, connected with the missions of that body of propagandists. The French government has a physician in Beirut, and one in Damascus, who are well paid, besides the privilege of private practice. They report to their government what they find of disease here, for the benefit of science in France, and also to enable the French government to justify its course in shortening the quarantine against Syria. They have physicians also in Smyrna and Egypt, for similar purposes. The Turkish government has a number of physicians in its quarantine and military service, most of whom are Europeans, being Italians, Poles and Hungarians. All of these gentlemen add to their incomes from the Turkish government by private practice among the European residents in the towns, and the wealthier natives.

In addition to these foreigners, there is a small but increasing number of natives, who have studied medicine in England or Egypt, or in the Sultan's schools at Constantinople. These gentlemen vary very much in their professional attainments, and from insufficient previous preparation, and other causes, are inferior to the European physicians here. There are other natives of good capacity, who by careful observation and thought, and by studying the books printed in Arabic in Egypt, under French superintendence, by conversation with European medical men, so methodically pursued as to be no mean substitute for clinical and other lectures, have attained to an amount of knowledge and practical tact which make them highly respectable practitioners. Dr. M. Meshaka of Damascus, is a shining example of this. Knowing no language but Arabic, he has acquired a sufficiency of knowledge of the sciences of the day to enable him to pass for a well informed man in any community; and he is a good physician as well as an estimable man. I had no true appreciation of the value of conversation as a means of gaining knowledge until I saw how much this gentleman had acquired, digested, sifted, and stored for use in this way.

Descending from these men, we find an ever-increasing number of doctors, with a smattering of medical literature, or with none at all. Some have read the French publications, rendered into Arabic in Egypt, just enough to spoil their language by a mixture of French technics, and confound their brains by a glimpse of the modern advance in medicine. Others study the old authors, and gravely quote Galen, Avicenna, etc., as the lights of all ages, to whose authority all must bow. Others study nothing but some pharmacopœia of popular nostrums.

The pressure of other matters keeps me from general practice, and I am often in consultation with all classes, and you can imagine the variety of authority to whose dictum I am at different times expected to yield my own convictions. To-day, the accomplished Frenchman eloquently explains what he has learned of the state of the patient by careful examination, and almost confounds me into submission to some fancy of Broussais or of Louis. To-morrow, an untaught Syrian will assure me that opium is a cold remedy, and that all acids

injure if the chest be inflamed, and that neuralgia is wind. One asserted that fever is a hot disease, and should have a corresponding, i. e., a hot remedy. Luckily he thought, from the result of other cases, that cream of tartar is a hot remedy, and this double blunder saved his patient and confirmed the doctor in his theories. Another, having a patient with a tremulous quaking of the head, ordered the application of a large stone mortar, which the patient was to wear on his head until the coldness and weight of the stone should still the quakings. In a few hours all were still in death. The favorite, indeed universal theory of this class of practitioners is, that the stomach is the great cauldron where all bad humors are concocted. These ascending to the head, are there condensed, and steam down (I use their own favorite illustration) here and there causing inflammations in the parts to which they descend. Returning, ascending humors are cold, as scrofula. From this theory the vulgar name for inflammation is *descent*; and if inflammation recurs often in any particular part, the inference is that the humors have *worn a channel* there, and the common practice is to cauterize with a hot iron across the supposed track of this subcutaneous canal. I have seen a thorough burn entirely across the forehead, to cure recurring opthalmia. The practice succeeding proves the theory; a very common mode of reasoning even farther West! Actual cautery is used extensively and in every day practice. Infants are cauterized at the cervix for aphtha. Neuralgia is treated with fire. I have seen cautery carried quite across the abdomen in three parallel lines for chronic diarrhœa; and issues are made by actual cautery as freely as blisters are used in the United States.

Local blood-letting as well as general, is practised extensively. Leeches are found in the interior, and are gathered for export in large numbers. Scarification is employed in the case of young children. Often an infant will be put under the razor of a barber, who coolly makes deep or superficial gashes on the calf of the leg or along the back. A stout man with florid face, complaining of headache and giddiness, had a string drawn stoutly about his neck until his face became almost purple. A razor was placed on the tip of his nose and struck sharply with a stick, so as to slit the tip of the nose, and thus extract the blood, in imitation of nature, which so often cures the headache by epistaxis.

The surgeons of Syria are generally barbers—many of whom are dexterous in the use of their instruments, which are very few and simple, and crude in form and workmanship. I have a neighbor, who has no knowledge of anatomy and cannot read, who has operated for stone with success repeatedly, although not always. Some native oculists operate for cataract by puncturing the sclerotic with a common lancet, and depressing the lens with a probe. None of these men know any thing of anatomy, and it would seem that they are guarded from accident by that merciful and wise Providence, which so uniformly gives some compensation for the deficiencies which he has allowed. For instance, the circulation of the blood is little known, and that the artery near the vein at the elbow will not cease to give out blood as easily as a vein, is as little understood. They do not open it purposely, because it is not the custom, and I have been able to learn of only one instance in which it was opened accidentally. A native told me, that in a fleshy person, where the vein could not be made to appear, he used to feel for the throbbing vessel and plunge his lancet down towards it, because the vein is commonly above it. And yet he knew nothing of the accident of which most Western hospitals can give repeated instances from their own records.

The science of bone-setting is all *knack* here, or innate skill. Bone-setters are often women, or cobblers, and in the country they are commonly goat-herds, who have gained experience by tying up the limbs of the goats which are broken among the terraces and rocks of Lebanon. Short splints, say four

inches long, tied tightly about the fracture, are the sole dressing. The extremity of the limb swells, and mischief follows often. I was consulted a few days since by a Druse, whose son, four years old, had broken the humerus near the elbow. It was bandaged as above described, and as a consequence, the fractured end of the humerus and the front of the elbow-joint were denuded of integuments, and nearly half the flesh of the fore-arm sloughed off. A man having had a crooked fore-arm result from such treatment, consulted his doctor, who told him to have it broken again and re-set. He consented—but the doctor found that the bone was strongest at the old fracture, and broke both bones between that and the wrist. The result was a double curve, but unfortunately the second was not so contrived as to compensate for the first.

Teeth are extracted with the simplest forceps; and the only filling of teeth I know of is by a priest, who first pulls the tooth, then fills and restores it. Indeed we residents often wish that a good dentist, fully equipped, would visit the Holy Land, and take Beirut in his way.

Had Syrians the anatomical and other knowledge requisite, they would be no despicable surgeons. They are dexterous in all manipulations they are acquainted with, and are acute and prompt in their reasonings and decisions. Their fathers had a name in our profession, and the sons of this generation need but the means and the opportunity in order to take their place among the lights of science, as in days gone by.

(*Dr. De Forest in Boston Med. and Sur. Jour.*)

XI.—*On a case of Phlegmasia Dolens of the upper extremity, occurring after Parturition.*

BY J. M. WINN, M. D.

On the 13th of April last I was called in to see a Mrs. G., about 40 years of age, residing near the Mile End Road, and who had been delivered of her ninth child thirteen days before I saw her. I found her in a sinking condition. The countenance was extremely anxious; the abdomen tympanitic and distended to an enormous extent; the pulse small and rapid and the mind confused. The peculiar and very remarkable symptom, however, was a pale, hard, and extremely painful tumefaction of the whole of the right arm, extending from the shoulder, in an even and diffused manner, to the extremities of the fingers. The lower extremities of the body were not affected.

Mr. Hall, of the Mile End Road, who was in attendance on the case, informed me that his patient had been delivered by a midwife, that she had suffered from occasional rigors, and also from pain, without swelling, of the left shoulder, as if the disease were about to affect both upper extremities.

We ordered milk and brandy, but it was evident that nothing could save her, and she died early on the following morning.

There can be no doubt that the above case was a most unusual form of phlegmasia dolens. I cannot, indeed, find on record a single instance of phlegmasia dolens of an upper extremity occurring after parturition. Dr. Ramsbotham, in the last edition of his work on Midwifery, alludes to phlegmasia dolens of the arm as an occasional sequela of carcinoma mammæ, and Doctors Stokes and Graves mention similar cases as complications of typhus, but in no instance as occurring after parturition.

The cases which approximate most closely to the one I have instanced are those (Nos. 1 and 2) published by Mr. Coulson, in his interesting "Observations on Affections of the Joints in the Puerperal State;" but in these cases the disease and pain were principally referred to the neighborhood of the joints.

I am sorry to add, that every effort to obtain a post mortem examination was made in vain.

(*London Lancet for October.*)

XII.—*Case of Rupture of the Peritoneal Coat of the Uterus.*

BY RICHARD LEE, B. A.

Mrs. C., aged 45, wife of an agricultural laborer, having been in good health and occupied with her usual household duties on the previous evening, was taken in labor with her tenth child about 4 o'clock on the morning of the 18th of April. The pains were confined to the back, and very feeble, ceasing altogether in less than an hour.

At nine o'clock a medical attendant, one Mr. Smith, arrived, and having made a vaginal examination, gave it as his opinion that "all was going on well, but the labor would not be over for some time;" when, ordering ginand water to be administered, he left. Three doses of the ordered stimulant were administered, and at a quarter before one the patient was suddenly discovered to have lost all power, either of motion or speech. Mr. Smith was again sent for. He arrived at 1 o'clock, but only in time to see her expire. No efforts were made to preserve the child.

A coroner's inquest was appointed, and I received an order to examine the body of the deceased, which I did, assisted by Mr. Cogan. The external appearance was unusually healthy, presenting no signs of emaciation or injury. Of her previous labors we could learn but little, except that they had been unaccompanied by any thing unusual. The muscles of the abdomen were of natural development; the lungs remarkably healthy, no adhesions; heart small and rather pale, cavities empty; abdominal viscera healthy, but in the cavity of the abdomen we discovered about three pints of dark liquid blood; the uterus appeared healthy, and of natural development; the os dilated to the size of a sixpence, not stained with blood at any point. Raising the uterus we discovered, on the posterior surface, about the centre, a rupture in the peritoneal coat, extending transversely between ten and eleven inches, the margins being in the centre, two and a half inches apart. Above and parallel with this was a second rent, seven inches long and three quarters of an inch wide. They both crossed a large vein the size of a goosequill, from which the principal hemorrhage occurred. On opening the uterus anteriorly down the middle line, we found the whole internal surface on that side covered by an unusually large placenta. The membranes had not been ruptured, but contained only a small amount of liquid amnii; also a healthy male fœtus at the full period of gestation, head presenting.

This case is interesting in various points, among which, by no means the least, is its comparative rarity—the injury being confined exclusively to the peritoneum. The os uteri was thin and yielding, the liquor amnii present, though not in large amount, and no perceptible contraction had taken place for seven hours and a half before the accident occurred; facts which, taken together, would strengthen the opinion that the walls of the uterus become expanded

just previous to a contraction, on which hypothesis an accident of this kind would easily be explained ; whereas I do not think any thing very satisfactory can be attained if we are to regard it as the result of contraction alone.

A second question arises--would it not have been possible to save the child ? I leave this to be answered by the profession ; but for my own part consider that no means should be omitted by a medical man to save the life even of an unborn fœtus. (*Ibid.*)

Yes, by the Cæsarian operation.

(*Ed. N. O. Med. and Surg. Journal.*)

XIII.—*Camphor an Antidote for the poison of Strychnine.*

BY I. PIDDUCK, M. D.

In Mr. Cooper Foster's paper on poisoning by Strychnine, which appeared in the September No. of the Lancet, he states that "no antidote is known." The following case will help to supply the deficiency.

J. W., piano-forte maker, a weakly man, of intemperate habits, accustomed to work in a hot work-shop, and to exposure to cold on his way to and from work, was the subject of severe attacks of rheumatic gout. After one of these gouty rheumatic attacks he was suffering under dyspepsia, neuralgic pains and general debility. For the relief of these symptoms strychnia was prescribed, in the dose of a sixteenth of a grain three times a day. By mistake at the chemist's, (one of the first in London) the grain of strychnia, with sugar, was divided into *six* instead of sixteen powders.

The first dose taken in the evening produced severe twitchings of the muscles ; but the second dose, early in the morning, threw him into violent convulsions. The messenger who came for me said he was dying. Immediately on discovering the mistake, and witnessing one of the frightful paroxysms, I prescribed twenty grains of camphor in six ounces of almond mixture, one fourth to be taken every two hours. The first dose so completely quieted the convulsions that there was no need of a second.

Cases of this kind rarely occur, and I have only this one to adduce, but the incompatibility of strychnia and camphor proves, *pro tanto*, that the one is the antidote to the other. As a general rule, to which there probably may be many exceptions, the poison and the antidote severally are to be found in the three kingdoms of nature.

(*London Lancet for November.*)

XIV.—*On a Case of Poisoning from swallowing Chloroform, and on its administration in Lead Colic.*

This occurred in a case of severe lead colic, for which the chloroform was given internally with advantage, when on the eighth day of treatment the patient, by mistake, drank a draught from the bottle containing the chloroform. The burning sensation produced informing him of his error, he drank large quantities of water, and made ineffectual attempts to vomit. He was found a few minutes afterwards with his eyes shining, his features animated, singing and talking incoherently, and unable to recognise those about him; there were various convulsive movements, and the skin was insensible to pinching, pricking, etc. The pupils acted naturally, but the power of vision seemed gone. Pulse between seventy and eighty. In twenty or thirty minutes he fell into a sleep, which became very deep, and was accompanied by anæsthesia of surface, and complete relaxation of limbs, the pupils and respiration continuing normal. Leeches were applied behind the ears, and purgative enemata given, and in a few hours he rose like a drunken man, to fall into a sound sleep again. Next day he could remember nothing of what occurred, and the ill effects gradually wore off. As near as could be guessed, the man must have drank between eight and ten drachms of chloroform; and the innocuity of so large a dose can only be explained by the rapid elimination which Snow and others have proved that chloroform undergoes. M. Aran thinks that in similar cases, a preferable treatment would be the administration of strong coffee, and the application of cold to the head and sinapisms to the feet—means whose efficacy is known in cases of poisoning by alcohol, opium, ether, etc.

M. Aran speaks in warm terms of the internal use of chloroform in hysteria, spasmodic colic, lead colic, etc., given in increasing doses from 20 to 150 drops, in the twenty-four hours. Not only has no accident occurred to any of the very numerous cases in which he has given it, but the physiological effects at most in some cases resembled the transient intoxication induced by champagne. He has compared its efficacy in lead colic with that of the usual remedies, especially purgatives and alum, and in a great number of cases. He does not deny the efficacy of purgatives, and thinks that they should be always employed in conjunction; but when given alone, only very powerful ones are efficacious, and then only temporarily so. He thinks even less favorably of alum, as he has found it very slow in operation, and of doubtful efficacy, beyond enabling mild aperients to act where drastics would otherwise have been required. Chloroform acts as opium or belladonna, by relieving the spasms, which constitutes so important an element in the disease. It has this advantage, that it may be given in considerable doses, without the incessant watching required by the other two, owing to its rapid elimination. It should not, any more than they, be employed alone, but in conjunction with means for ridding the economy of the lead, as sulphur and vapor baths, etc. The chloroform is to be applied locally, and administered in a mixture, in doses of from fifteen to twenty drops morning and evening, and as much in a glyster, increasing this quantity if required.

(*Bulletin de Therap.*)

Part Third.

REVIEWS AND NOTICES OF NEW WORKS.

I.—*Transactions of the National Eclectic Medical Association, at its Third Annual Meeting, held at Rochester, New York, May 1st,* 1852.

The transactions of this association are embraced in a pamphlet of 166 pages.

We cannot assure those who, from curiosity, inclination, or a desire to take a bird's-eye view of all the novelties, and many of the follies, that are presented under inviting aspects and imposing names; and as we must regard the transactions before us as a *mixed compound* of each of these qualities; that in the perusal of them they will have nothing to regret on the score of wasted time, truth perverted, and the ejaculators of *cunningly devised fables* attempting to win their way to the clamosa fama, under the flimsy pretext of asserted Philanthropy, and undying attachment to a theory, so called scientific, which is to so change our mortal bodies, that even the decree of Deity, "that dust thou art, and unto dust shalt thou return," will hardly find admittance into the inductive philosophy of the zealous advocates of the new plan of "inductive medicine."

Verily in such proceedings there exists much cause for regret, and that men who need reformation should have become reformers, is only an evidence of the blindness and folly which is fully sustained in theory and carried out in practice.

To ascertain the motives which incite to action, it is often necessary to look beneath the surface; and in the discovery of some secret spring,

some mysterious contrivance, we fully estimate the chicanery and the fraud, or the truthfulness and the simplicity, with which an undertaking has been planned and executed.

When a system in religion, in morals or in medicine, has been found by long trial and experience to be well adapted to the wants and to the necessities of men, it is neither the part of wisdom nor of prudence to reject the one, because she has failed to imbue all with a spirit of reverence—or another, because an universal corrective has not been found for immortality—or the third, because the only legitimate system of medicine has been found inadequate successfully to combat every disease.

Regarding, as we are compelled to do, the "Eclectic" movement in medicine, as evidencing a desire amongst a large portion of its advocates for notoriety and the furtherance of sinister motives, rather than as the offspring of universal good and the advancement of medical science, we proceed briefly to comment upon the transactions, in order that it may be seen if we have prejudged their productions, or dealt other than fairly with their lucubrations.

Modesty is a quality, which, it is admitted, highly adorns a woman, and by parity of reasoning we might infer, that a small portion of it might enter into the character of man, without prejudice and without taint to his fair name; such, however, seems not to be the generally entertained opinion of medical Eclectics, as shown by the transactions.

Upon the authority of the reports, we are bound to yield our ready assent to the *remarkable success* of the "Eclectic Practice;" on this point we need only refer to the report of Dr. Skellenger on Medical Statistics, embracing 651 cases, which occurred in his own practice in eleven months, out of which number, we are significantly informed, he "lost only one!" that could be regarded as his own. This statement, coming from the author of Medical Statistics, whose report is so comprehensive as to embrace the singular variety of diseases named in the 651 which occurred in his practice in "eleven months," we feel *almost* implicitly bound to believe it; but were medical gentlemen of New Orleans to venture upon a statement of such cool effrontery, we should naturally doubt their sanity or question their veracity; and the more so, had they consulted so extensive a glossary to give us names for disease, the diagnosis of which would have made the most skilful hesitate ere they hazarded an opinion.

In the closing passage of the report, the writer incontinently furnishes us with the key to his successful practice in the following manner:

"Allow me to add, he writes, "that I have not performed general venesection in a single case." If by "general venesection" the author means that he did not in a single case open a dozen veins at one and the same time, he is merely stating that he was not guilty of systematic murder upon a plan of his own invention, which, however ingenious, might have spared him a repetition of the experiment; but if he mean that his "Ecclectic" tendencies were all powerful to save him from the abstraction of a single drop of blood, he would not have been led into the expression of "general venesection," and we might have parted with "Report C." under the agreeable impression that the closing sentence had no fault of *commission.*

Were we disposed to be ruffled at much of the unblushing impudence of our rude assailants, who in no instance exhibit more "Eclectic" propensities than when amusing themselves in some *fearful castigation* of those of opposing practice, we might be betrayed into error whilst noticing the proceedings; and lest it should be imagined that we are disposed to condemn these "Eclectic" gentlemen unheard, they shall in a few sentences again speak for themselves. Thus one writer informs us with seeming gravity, that he "has had his hopes and his faith severely tested, and like many of the more discerning, has *almost* been led to conclude that the entire class of Physicians were a curse, rather than a blessing to the world. But hope is dispelling these doubts. On all sides there are hopeful indications."

Now as this gentleman signs himself an M. D., he must of necessity fall under the "entire" weight of his own condemnation, unless by the saving clause he can "almost" and altogether be ready to say with Byron, in reference to the world, that "he stood amongst them but not of them;" an exclusive if not enviable right, that we shall not venture to gainsay. "But hope," he continues, "is dispelling these doubts;" i. e., a doubt has suddenly sprung up in the mind of the writer, whether as a Physician it is not "almost" unnecessary to curse himself, since "on all sides" it is plainly avowed "there are hopeful indications." The American Medical Association is sadly stigmatized; it is "most exclusive;" it is "aristocratic;" and it "must either yield the demanded reforms, or be utterly destroyed." This is what Shakespeare might have denominated, "heaven for thunder, nothing but thunder!" But then as we do not find in this letter, which was sent from Vermont to the Convention, on account of the unavoidable absence of the writer, any striking evidence of *fiery genius,* the American Medical Associa-

tion may escape this threatened destruction, and carry out its "exclusive" tendencies by denying admittance to every species of "Eclectic" humbug.

The "fundamental doctrines in the faith of the Eclectic school," as adopted by this Association, are contained in seven or eight articles. In the 4th it is stated, "that a departure from the healthy condition of the tissues and organs interrupts the functions of the animal economy, and that the recuperative powers of nature only can effect a restoration. Accordingly, that the object of all medication should be, not to do the work of nature, but to afford her the means of doing her own work, more advantageously, and under circumstances in which she would otherwise fail."

Here is truth mingled with error; the first part of the paragraph contains a proposition which is denied in the second. "That a departure from the healthy condition of the tissues and organs interrupts the functions of the animal economy," will not be denied; but "that the recuperative powers of nature *only* can effect a restoration," is an "Eclectic" fallacy, of which the writer seems to be aware when he admits that the object of medication is to enable her to perform her work more readily, not that she is at all times alone equal to the task. If nature *only* can at all times effect a restoration, "Eclectics" are guilty of gratuitous interference with her laws, for which they should be made amenable to civil authority.

This "fundamental" doctrine, contained in article 4th, may, at some future time, be improved by "national" revision, or "Eclecticism" will die a natural death.

In article 7th, we find that "the mineral poisons, such as mercury, arsenic and antimony, and all their various preparations," are to be expunged, and then with the "Eclectic" motto, of "truth and progression," "over three hundred thousand lives will be saved per annum," which Dr. Oldshue informs us will be "a living mighty monument!" "Five years ago" this gentleman commenced practice in Pittsbugh, during which time he has treated more than five thousand cases, not twenty of which have contributed to the "Allopathic monument *of human bones!*" This statement being made "to the best of my (the Doctor's) knowledge," and having nothing to add that would improve it, we leave him, as he himself has *figuratively* expressed it, "smouldering away upon the ruins of Allopathy." The first "Eclectic," we believe, who has been immolated upon the altar of opinion!

With regard to the Pathology of disease, different opinions are en-

tertained by members of the convention, some being willing that that subject should remain untouched, whilst others desire its partial overthrow; "Physiological facts, of course, must be the same in all schools," they are willing to admit; it is in Therapeutics that they especially desire to strike out a new course, and "instead of bleeding," in one of the reports upon Surgery it is written, "we administer small doses of lobelia,"..... which, aided with Ex. Cypripedium, Tinct. Gelsemnum, etc., "controls muscular action." The articles used instead of mercurial preparations are "Podophillin, Iridin and Sanguinaria."

The same writer is greatly concerned at the use of Opium, "since nature has furnished so many pleasant and harmless things, which leave no bad after effects, and which are so well known to the profession, how shocking the thought that such things should be thus used!"

We are told that "the use of Croton Oil internally and externally is barbarous;" that death is often induced by its use, and that the "structure of the bowels is ulcerated through." Of the effects of *many* of the articles above named, having had *no experience* in their use, we shall rest satisfied with the statement which has been made; but with regard to the external (not to mention the internal) use of Croton Oil, the writer must have alluded to its employment by some *outside barbarians*, for its consequences often to have been "most disastrous;" in its pustular effect great *good* is very frequently the result, nor can we discover any thing very "shocking" in the use of Opium, except when some poor fanatic desires to experiment upon its suicidal effect.

We are also informed in this report, that "the lives of young and old by thousands are daily taken; and the united sepulchral voice of millions slain comes up from the tomb to charge Eclectics to do their duty to an aggrieved race." It is plain these gentlemen have no fellowship with the graveyard, and hence they can pleasantly chant—

I will not have the churchyard ground
With bones all black and ugly grown,
To press my shivering body round,
Or on my wasted limbs be thrown.

With ribs and skulls I will not sleep,
In clammy beds of cold blue clay,
Through which the ringed earth-worms creep,
And on the shrouded bosom prey."

It is not probable that Crabbe, when he thus versified, had "Medical Eclectics" in his brain, but we may be pardoned the connexion if

——————————"On either side
The portal, friends stand guard."

We might pursue this subject much farther, were it not that prolixity upon the follies of humanity would be an useless expenditure of time; we will therefore rest the merits of the "Transactions," in addition to the foregoing extracts, upon one or two passages, which are found towards the close of the work, and in so doing commend them to the tender mercies of a *generous public.*

We are told that "in accordance with their Pathology, (i. e., with what they are pleased to call the school of "*hunkerdom and quackery,*" which is soon to *tumble and fall* before the power of "Eclectic" science) they will plunge the lancet into the veins," until the patient is brought to the "lowest point of vitality" in the treatment of fevers: and that "every one understands that if he is treated by an Allopathic Physician he is to be made worse and debilitated to a low point before he can grow better."

Such statements as these are truly characteristic, and had they been more truthful, we might well have doubted the source from whence they issue. Had not the writer been entirely ignorant of the course of treatment of fevers generally employed at the present day, he would scarcely have hazarded an assertion without the semblance of truth; and that every body understands that "Allopathic" Physicians first make their patients worse in order to cure them, is only

"A paper pellet of the brain"

of some gentleman who might have had the rich facetiousness of Swift, had not *nature designed him for some other thing.*

Dr. Dolley is also in favor of a thorough female medical education. We are at a loss to imagine why the other half of creation should be called upon to join an already fully stocked profession, unless it be that the Doctor believes, that in "Ecclectics" the weaker vessel would prove the better man.

In answer to tee Doctor's own query, "Eclecticism—what it is, and what it may be," we do not find any very correct or definite solution; to choose the good and reject that which is truthful in theory or practice, is only to adopt a course which is alike consonant to reason and good sense, and not confined in its applicability to medical pursuits;

in the selection of remedies for disease, the time has not yet arrived when a handfull of men, with common propriety, can entirely blot out from our Pharmacopiæs and from our practice many most valuable agents, and substitute those which have neither the sanction of time, as a test of their efficacy, nor the approval of scientific enquiry, to strengthen our belief.

In closing our remarks upon Medical Eclecticism, we leave them improving upon the past till their next annual convention, if

> "Not extinct, they hold their way
> In glory through the sky."

G. T. B.

New Orleans, Dec. 1, 1852.

II.—*On Syphilis, Constitutional and Hereditary; and on Syphilitic Eruptions.* By Erasmus Wilson, F. R. S., etc., etc. With 4 Colored Plates. 1852.

The author justifies the publication of another work on Syphilis, for the following reasons: The purpose, says he, of the following pages, is the elucidation of a subject of extreme interest, and at the same time, one of considerable complexity. My attention, he continues, was first directed towards it by the practical necessity of distinguishing between eruptions of the skin, which proceeded from ordinary causes, and those originating in Syphilis; and having before me an ample field of research, I determined to investigate the subject as it was presented to myself, and without reference to the opinions and labors of others in the same department.

Mr. Wilson has indeed studied his subject with great care, and arrived at conclusions varying in some important particulars from others who have written on this truly perplexing and complicated disease. We shall endeavor to present, in the subjoined "notice," to the reader, some of the peculiar views of Mr. W.

Persuaded, from extended observations, that Lupus, Kelis, Lepra and Psoriasis take their origin in hereditary syphilis, Mr. Wilson has given a wider range to the subject of his work than any writer of ancient or modern times; and we believe that if the reader will follow him through the volume, and note carefully the facts which he presents, and the reasonings deduced therefrom, he will be persuaded in the end to take sides with the author and adopt some of his opinions.

Chapter *First* treats of Syphilitic Poison ; *Second*—Primary Syphilis ; *Third*—Secondary or Constitutional Syphilis ; *Fourth*—Evolution of the syphilitic poison by the skin ; *Fifth*—Local actions by Syphilis; *Sixth*—Congenital Syphilis; *Seventh*—Hereditary Syphilis; and *Eighth*—Treatment of Syphilis.

Syphilitic poison gives rise to a local and a general action ; the second always follows the first, as we believe ; the one is designated the primary—the other the secondary or constitutional disease. Nothing is known of the physical character of the poison ; but we do know that it enters the system by absorption, reaches the circulation, and diffuses itself through every part of the body ; even penetrating the most solid structures, as bones, etc. Mr. Wilson likens the mode of propagation of the syphilitic poison to the simple process of vaccination ; the vaccine poison is placed in a position, says he, favorable for its action on the tissues of the patient; it there sets up a local or primary action, and that local action is accompanied, after a certain length of time, by a secondary or constitutional action.

The poison of Syphilis reaches the circulation by *imbibition*, whether the surface through which it may act be broken or unbroken ; this imbibition of the poison by the animal tissues takes place insensibly and slowly. During this stage of the case, and before any signs of local lesion are manifest, the disease is said to be *latent ;* sooner or later, (in from three to seven days, says Mr. W.) certain local appearances will be seen, which will demonstrate the influence of the poison. The local action, or chancre, so produced, is denominated primary syphilis.

Mr. Wilson believes that the common mode of transmitting the syphilitic poison from one person to another, is effected by a secretion obtained from the surface of a syphilitic sore or chancre, which, when brought in contact " with the tissues of the sound person," under favoring circumstances, will give rise to the same local lesions. He further believes that a man or a woman who may have suffered from syphilis, and been apparently cured, can nevertheless transmit the poison to other persons through the *secretions* of their organs alone. Mr. Wilson regards this mode of transmission as of the utmost importance, and proceeds to furnish cases illustrative of his doctrine. We believe the doctrine sound, but do not think his cases apposite or genuine. We think we can here assist Mr. W. in the elucidation of his point. The case is as follows. A gentleman aged 40, of fine constitution and robust health, was married to a young, hearty and healthy woman ; in due time they were blessed (?) with a child ; the father requested me,

a few weeks after the birth of the child, to visit the mother; on examination, we found the mother the subject of a distinct syphilitic eruption, extending over the scalp, forehead, arms, back, shoulders, etc. The hair had grown thin, dry and lifeless; the palms of the hands were also the seat of an eruption. We requested to see the child; the little thing was delicate, thin, and very feeble; and likewise covered with well characterized syphilitic blotches. In conversation with the father and husband, we learned that several years previously he had an attack of syphilis, and as proof, pointed to the palms of both hands, which bore indubitable evidences of previous contamination. He had no chancres for years prior to his marriage. The wife was put upon an anti-syphilitic course of treatment and rapidly recovered; the child being nursed by the mother, received through the milk the curative influence of the medicine, and was cured as soon as the mother. This case, backed by many others that might be mentioned, goes to sustain Mr. W.'s doctrine, that persons may communicate the syphilitic poison by the *secretions* from their organs.

The poison of syphilis may be imbibed by an individual without lesion of surface, or any outward manifestation of disease; so says Wilson, and we are strongly disposed to concur with him in this opinion. We have occasionally been consulted by persons laboring under all the symptoms of secondary syphilis, who assured us that they never had any chancres or other local evidences of the disease; yet the symptoms were so well marked and characteristic of that disease, that we unhesitatingly treated them for that disease, and they speedily got well. Should we not regard this as some evidence of correct diagnosis? Mr. Wilson believes that a secondary poison may give rise to a secondary disease; or a constitutional and modified poison may produce a constitutional disease without the presence of a primary disease in either the one communicating or receiving the disease. The poison of syphilis may, as Wilson maintains, exhaust itself, in certain persons, upon the spot with which it comes in contact; or it may produce there a very slight lesion—be absorbed, the lesion heal, unobserved, and the individual become poisoned without suspecting by what means, or through what channel the disease may have reached the general system.

The author asks the following important question, which is often addressed to the Physician, viz: What is the period which would be considered safe for a man to marry after he has been affected with constitutional syphilis? Before replying to this question Mr. Wilson proceeds to explain his views concerning the law and action of the syphilitic poison, as follows:

When this poison is once admitted into the human organism, it has a tendency to accumulate until it attains a certain point, which may be termed the point of saturation. As soon as the saturating point is reached, an outburst of fever, which results in the elimination of the excess of collected poison, takes place, and the system returns to its wonted tranquility and calm. This process is repeated at intervals, until after a time the intervals lengthen, and the effects gradually diminish; from weeks the intervals become months and years: from severe fever the attacks become trivial and insignificant; and at last the poison is so thoroughly assimilated, that it ceases to accumulate in excessive quantities, and loses its power of exciting a febrile action in the blood of the infected person.

But although it may be incapable of exciting disease among tissues accustomed to its presence, it still retains the power of contaminating new blood; and it is difficult to determine how long this degree of virulence continues. At first, probably, it may be so far weakened, that the wife escapes, but the offspring may suffer; and at last it is rendered so mild that only accidental conditions call upon its powers of doing evil. It remains, however, as I believe, lurking in the blood and in the tissues for many years, and probably for the rest of life.

Under these circumstances our answer to the question as to the time which should intervene between disease and marriage, must necessarily be modified by a variety of conditions; for example, by the nature of the secondary disease, by the known susceptibility of the individual, by his state of health, his occupation, and by the treatment he may have undergone; and something must be known also of the health of the proposed wife. Taking the most favorable view of the case, from two to five years should be permitted to elapse, such period being passed under the close observation of the medical man.

The author recognizes five kinds of primary syphilitic chancres—the *simple*, the *inflammatory*, the *sloughing* or gangrenous, the *phagœdenic* and the *indurated;* but any of these conditions may supervene in the course of the disease, modified by local causes or constitutional peculiarities.

Mr. Wilson thinks that the sloughing and phagedæmic chancre is rarely followed by constitutional symptoms, because the excessive local action of the parts diseased seems to destroy the virus-forming process; whereas the calm and natural action present in the simple chancre, seems to render the system more liable to constitutioual infection. Phagœdemic infection is always followed by constitutional symptoms. We here dismiss the descriptive portion of the work, and come now to that division of the book which is the most interesting to the public, namely, the "*treatment* of syphilis."

Prefatory to this subject, Mr. Wilson makes some observations on the "*prophylaxis*" of the disease. He recommends a "*careful washing of the genitals with soap and water;*" it should be done well and immediately after connection; and if well done he thinks it impossible for the male to contract the disease.

But we cannot agree with Mr. W. in this opinion, since numbers have assured us that they have tried it faithfully and fairly,and have, nevertheless produced a fine crop of chancres, with their usual sequalæ. He thinks the female more liable to contract the disease, because of the

difficulty of cleansing all the parts with soap and water, exposed to the absorption of the poison; vinegar and water he thinks the best injection for females, which should be freely used after the alcaline wash. Mr. W. thinks those who suffer a venereal sore to be developed on the body of the penis richly deserve it, because nothing but gross neglect could have allowed the contact of the poisonous secretion for the length of time necessary for absorption. Great care should be taken after the ablution to dry the organ perfectly, lest by diluting the poison we may render it more easy of absorption. In extreme cases of danger, the prepared cœcum of the sheep may be used as a means of protection. So says Mr. Wilson. This means will be found invaluable to the husband who may be afflicted with a chancre, and yet desirous of concealing the fact from his wife.

But when the prophylactic treatment fails, (as alas! it does too often, from the careless manner in which it is done) Mr. Wilson recommends the *abortive treatment* for the primary pimple pustule, or chancre. If we have reason to *suspect* the character of the sores, we should immediately resort to the caustic; because we do our duty to the patient, if our suspicions are well founded; and if not of a syphilitic nature, no harm accrues to the patient from the use of the caustic. As a caustic, Mr. Wilson prefers the *potassa fusa*, as the most effectual in destroying the tissues upon which the poison has set up an action. The next in order is the Vienna plaster, the chloride of zinc; after this he prefers the nitrate of silver. He objects to the nitrate of silver as too limited in its action on the parts; it does not extend its action to the depth of the poison; and the patient is almost sure to suffer from constitutional symptoms after the application of the lunar caustic. He says—with a pointed stick of potassa fusa, the surgeon possesses the almost magical power of converting all he touches into a transparent jelly; and then with a spunge he is enabled to wipe away the disease with but little pain to the patient. After the application of the potassa, the patient should remain at rest for several hours, and apply the water-dressing to the parts. No constitutional treatment is required when the potassa is properly applied in the early stage of the chancres—at least so says Wilson; we think, however, with becoming deference, that a little blue pill, followed by the iodide of potass, will be the best guarantee against future accidents; and will moreover have the effect of allaying the just apprehensions of the patient.

Mr. Wilson regards *mercury*, after the venereal poison once enters the system, as almost the only agent that can be relied upon for its expulsion; it must be conjoined with other articles of the materia medica

to give it additional efficacy in many forms of syphilis. In the mean time the patient is required to take an abundance of diluent drinks, for the purpose of still further diluting the poison and supplying a vehicle by which it may be carried out of the body; at least such are Mr. Wilson's speculations. We have more confidence in the virtues of a tepid bath, from time to time, to cleanse the skin, open the pores, and thus facilitate the elimination of the poison through this immense emunctional surface.

"In a word," says Mr. W., "the treatment of primary syphilis consists in limiting supply and encouraging waste;" but the supplies are to be limited, not restricted; the waste is to be economized and not encouraged to run to profusion.

We are forced for want of space to conclude thus abruptly our "notice" of this interesting work. We may refer at a future time to some of the views of the author; but for the present we must advise the reader to call on T. L. White, Canal street, buy and read the work.

II.—*The Hydropathic Encyclopedia, a System of Hydropathy and Hygeine.* By R. T. Trall, M. D.

Dr. Trall's first volume is principally confined to outlines of the various branches of medical science, illustrated with numerous engravings, and differing in no essential point, that we have discovered, from many other text books of Anatomy and Physiology. Passing over this descriptive part of the work, we are at once brought in contact with the *erratic* propensities of Dr. Trall, as he proceeds to explain his water-cure processes. Ultraism is an unfortunate quality of the minds of many men; with such the most extravagant opinions are entertained with all apparent sincerity; nor are we at all times at liberty to doubt the motives, however we may question the propriety or the truth of certain doctrines which are endeavored to be inculcated. With Dr. Trall, the element—water, is every thing; all rules, all practice, all doctrine, must be brought under the dominion of water, assisted, it is true, with those hygeinic agencies which enter into the materia medica of every hydropath, such as "air, light, food, temperature, exercise, etc., etc." These agencies, it is maintained, are sufficient to sustain every living animal in existence, as far as regards functional derange-

ment; and farther, "that a full knowledge of all the remedial resources of hygeine, with the possession of all the means afforded by such knowledge, enables the hydropath to dispense with drug medicines entirely."

Many men may find

> "Books in running brooks,
> Sermons in stones,"

But Dr. Trall eagerly eschews

> "The good in every thing;"

having found, in comparing notes with those who have used drugs in disease, restoration to health less certain.

The high value of water as a topical agent in many surgical cases, as also in scarlet and other fevers, is fully recognized, and its internal exhibition in health and in disease is the true assuager of our thirst, and were it more extensively used, medication of all kinds would doubtless be less required.

Artificial drinks the author considers poisonous, and in every sense inimical to the human constitution;" under this head will not only fall ardent spirits, malt liquors, wine and cider, but tea, coffee, chocolate, cocoa, etc., are proscribed, and medical authorities who have attributed to some of the former of these tonic, and to the latter, moderately employed, slightly nutritive and refreshing properties, are held to a very unpleasant accountability; and of Pereira, who holds that the practice of taking a moderate quantity of good malt liquor at dinner, is not only unobjectionable, but beneficial, it is said, "surely his admiration of the virtues of grog was not excelled by that of the toper."

As in drinking, so in eating, the author is primitive in his principles, and inclines to the vegetarian mode of living, as least favorable to the infirmities and the decay of life, instancing the rude and natural state of mankind, when for a period of upwards of two thousand years "the cook and the physician were equally unknown. It is to Dr. Lambe that those are indebted who desire to experiment upon an entirely vegetable diet, which, in conjunction with the use of distilled water, he recommends as a remedy for cancer, scrofula, consumption, asthma and other chronic diseases.

We had occasion some months ago, when an address came under our notice, in which the same opinions in a qualified sense were advocated, to comment thereon; we shall therefore proceed at this time to something more *substantial*.

Water cure establishments, in their dietary, do not exclude animal food; indeed in looking over their table the main difference consists in the exclusion of porter and ale, the free use of which, in some of the London hospitals, is mildly reproved. The writer also objects to the use of condiments, and even salt, which we believe all *orthodox* medical writers have ever considered beneficial and a promoter of digestion, are regarded as worse than superfluous, and those who will see fit to dispense with "salt, butter, cream," etc., are assured of permanent physiological advantage, as amply compensating for temporary privation. Notwithstanding that Dr. Trall states his thorough conviction "of the superiority of a properly regulated vegetable over the best plan of a mixed diet," a conviction, to which we think he has gained few, if any, proselytes, we find, in the chapter on "Hydropathic Cookery," many rules laid down for the preparation of animal food by those who cannot restrain the indulgence of a *sanguinary* appetite, which bear presumptive evidence that in the internal arrangement of the *cuisine* the author is no novice, and that in his preparation of fish, flesh and fowl, the most fastidious taste might eat and be satisfied.

It is, however, proper to remark, that "consistently with the principles advocated in this work, all kinds of flesh-fish, all fried dishes, all dishes cooked in butter or other grease, all minced or other meat pies, all very oily or greasy animals or parts of animals, all and every thing pertaining to the swine—pork, bacon, lard, sausages, etc., and all very young and very old animals, are to be considered as among the things prohibited."

Abernethy, and others of like good authority, have recommended a rasher of bacon for breakfast for dyspeptic subjects; and the good old practice of eating minced pies at Christmas, digested with fine sherry and hock, is likely to prevail over vegetarian folly, and the exclusive doctrine of Hydropathic diluents.

It is a remarkable fact, that the advocates of all the *new* modes and theories, by whatever name they may be called, for giving health and long life to man, and for restoring disordered function to its normal condition, should, by misrepresentation, and perversion of the truth, endeavor to cast odium upon that system of medicine, which alone has stood the test of time, and which, in the onward march of mind, has raised no barrier to the reception of light, no impediments to all rational investigation, and no rejection of plans of treatment that were divested of charlatanry. The fault, we are inclined to think, rests with those who would have us believe that they have discovered an universal panacea, and who, under some plausible pretext, make ready dupes of the unwary.

The water cure system, at the dictum of Dr. Trall, abjures the use of drugs, "and depends wholly on hygienic influences." That these influences are most potent for good, cannot and will not be denied; that they may be in many cases all-sufficient, is equally true; but that we should in all cases *wholly depend* upon them, to the exclusion of appropriate medicinal agents, is a fallacy that the author himself can scarcely believe.

"It is no uncommon circumstance for a patient to be dosed with a quart of brandy, or a gallon of wine, in twenty-four hours." We should imagine that cases requiring such an enormous quantity of stimulus in a given time were of *rare* occurrence, and that if dosed in this way without urgent necessity, the patient would soon be a fit candidate for hydropathic interference. It is to passages such as this, which are found scattered *ad libitum* through the work, that we point for evidence of misrepresentation.

In his chapter on fevers, Dr. Trall, not satisfied with the nosological arrangement of other authors, they being "unphilosophical and absurd," has proposed one of his own, which, it is highly probable, will fall under the same condemnation by some of his readers.

We transcribe a portion of the classification:

Continued fevers.

1. Ephemeral—one day fever.

2. Inflammatory—Synochus—General inflammation.

3. Typhoid.—Yellow fever, Nervous fever, Putrid fever, Ship fever, Spotted fever, Camp fever, Jail fever, Hospital fever.

In giving his views of some of the types of fever, he says, "the *yellow* variety is produced by causes which especially operate to impair the secretion of the liver, as excessive heat, animal or vegetable miasms, combined with gross diet and stimulating drinks. Every kind of animal food, except perhaps milk, in very warm climates, I regard as a predisposing cause of yellow fever." The writer will have to find some other *rationale* than this, else how will he explain the fact of delicate females, or females *not quite* so delicate, yet who are neither *gross in diet*, nor addicted to indulging in *stimulating drinks*, being attacked with yellow fever?

Since the days of Hippocrates, we are told, the *old school* plan has been to conduct fevers through their course; and that "by poisoning the body through and through, with course after course of drugs! There is nothing known to civilization more thoroughly barbarian than the drug treatment of a fever." To this we must give our hearty concur-

rence, for if our poor bodies are to be *poisoned through and through*, we must die martyrs to a savage treatment, and hang the Doctor without *benefit of clergy!*

But if Dr. Trall make the above statement in all sincerity and simplicity, we must inform him that at the present day, instead of conducting most, not to say all, fevers, *through their course*, we *cut them off*, and save our patients for a higher state of "civilization!" and this we do through the *chemical* agency of quinine.

Of inflammatory fevers Dr. Trall says, "The blood is on fire; extinguish the flame, and the patient will be well." The hydropathic treatment of this fever is, to "wrap the patient in double wet sheets, lightly covered with bedding; let him remain as long as he is comparatively comfortable: then wash him off with cold water. Repeat the process as often as the febrile heat increases..... In fact, a sufficient quantity of cold water applied almost in any manner, will finally effect a cure."

Water, especially in the form of ice, is certainly indispensable in the treatment of fevers; but having had no experience in the manner of its employment recommended by the author, we will only remark, that as such treatment would, in the greater number of cases, be opposed by the strong prejudices of the patient, an instant difficulty would occur to its employment, even were there no well grounded objection to being wrapt "in double wet sheets."

As a book of reference, there are many things in the Encyclopedia which may be found useful; the word "Hydropathic" might have been omitted with manifest propriety, had not the author an itching desire to render his volumes attractive by the capricious employment of a name, rather than by adhesion to the definition of terms; but the "*elements*" of Dr. Trall's mind warred against such a beaten track, and he has given us *water* and *vegetables* to allay our thirst for hydropathic information, and hygienic rules to preserve our *physique* from a *beggarly array of empty pill boxes.*

It becomes necessary for those who scan books, and then venture an opinion upon their merits or demerits, to take first their contents as they are presented, and if at all times it would be inconsistent to award unqualified praise, (our natural tendency not *over-inclining* to so *plastic* a course) so would it be unfair too severely to condemn the erratic foibles of men, who, but for some fanciful ideas, or some obliquity of mental vision, might have been satisfied to enjoy the secret consciousness af unobtrusive merit!

Those who read may often now-a-days be led to feel the force of the words of the bard, that "all the world's a stage," and although we may be highly amused at a good mountebank, or a really *clever fool*, whilst he caters to our amusement upon the stage, we must think that it would be no part of wisdom to write volumes upon their foibles, or attempt to cajole us into the belief that it would be the better part of discretion for all "men and women" to become "mere actors."

Having now passed through the volumes of Dr. Trall, we must fold the pages to rest, knowing

> "The groans of nature in this nether world,
> Which heaven has heard for ages, have an end."

G. T. B.

New Orleans, Dec. 8, 1852.

III.—*General Pathology, as conducive to the establishment of Rational Principles for the Diagnosis and Treatment of Disease.* By John Simon, F. R. S., one of the Surgical Staff of St. Thomas' Hospital, and Officer of Health of the City of London. Philadelphia, 1852.

This little volume, so full of original thought, and in many parts, of sound philosophy, embraces a number of Lectures, delivered by Mr. Simon to his class at St. Thomas' Hospital during the summer session of 1850. In the study of Pathology, the blood, of course, must claim a large share of the writer's attention; and Mr. Simon has devoted the first few lectures to the consideration of this important fluid. To give the reader some distinct idea of the author's views on this part of his subject, we subjoin the following speculation.

If this were the whole history of the blood, its investigation in disease would be comparatively easy. But a chief difficulty in the study is this; that the blood undergoes changes of its own; undergoes what I can hardly call any thing else than a process of growth. In addition to receiving new matter from the food, and old matter from the tissues; in addition to feeding the several organs and supplying the several excretions of the body, it does also itself undergo, as I have said, progressive changes of its own, analogous to the growth of the solid tissues. For the new materials which are derived to it from the food are not blood at the time of their addition; they are crude, immature products, which subsequently ripen within the stream of the circulation, under the influence of the maturer blood, and conformably to its composition. To some of you perhaps the view here suggested, of the blood undergoing development akin to growth, may be new and strange. There is an early prejudice which makes us consider solidity of structure an indispensable preliminary for the residence and manifestation of life. Still in spite of that prejudice, and in spite of the fluidity of the blood, you may safely believe that that red fluid is a living and growing mass; that the process of blood-formation is not the mere infusion of certain ready-made materials from without, but is as truly a process of growth as the development of cartilage or muscle.

If the power of resisting change; if the power of converting things to its own type, and perpetuating its own constitution be signs of life in an element or portion of the body, I know none which possesses these qualities in a higher, if in so high a degree as the blood. And further, in recalling its anatomy you will be confirmed in this view. You will remember that in all other elements of the body the abundance of cell development which you meet with measures the activity and constancy of growth; and if you put a drop of blood under the microscope and compare it with a patch of equal size of liver or of brain, you are at once enabled to judge how immeasurably greater is the developmental activity in the blood; or if you look at a drop of fluid from the thoracic duct, you observe myriads of cell-germs there; germs which it is the chief and perhaps the only object of the lacteal and lymphatic systems to provide, and which attain their maturity and fulfil their purpose only when received into the blood.

And not only does the blood live and grow; but in the mature animal its life and growth must precede all other life and growth in the body; for first it grows and next other organs grow at its expense.

What I have said will suggest to you how many liabilities to disease are included in the circumstances to which the blood is exposed; how easily morbid ingesta may become commingled with it as causes of change; how easily matters may be retained in it which various distant organs ought to eliminate; how easily its own progressive development may be interfered with, arrested or deranged.

The enumeration, too, that I have given of its functions in health, will show you sufficiently what particular difficulties belong to any investigation of its changes in disease. In the first place, the extreme rapidity with which all its changes occur, the consequent transientness of the phenomena, and the minute quantities in which several of the ingredients exist, oppose great obstacles to the research; but still greater embarrassment is caused by the extreme complication of the fluid. By complication I do not mean merely that it contains a large number of ingredients; but that those ingredients correspond to different dates of time, to different degrees of development and to different organs of formation. Mentally we can see with perfect distinctness, that in every porringer of blood drawn by the phlebotomist there do in reality coexist three forms of blood, viz:

1st. Blood not yet ripe, but in course of development; perhaps I should rather call it matter in a transition state from food to blood.

2d Blood which is already perfect, and which at the moment of its abstraction was actually doing the work of the economy.

3d. Blood which had done its work and was worn out; or to speak more exactly, the waste material of those various organs and tissues which the blood had previously nourished.

Mentally I say we can separate these three kinds of blood, but experimentally we cannot; they are mixed together—past, present and future, (the blood of yesterday, the blood of to-day and the blood of to-morrow) and we have no method of separating them.

In all probability the fibrin and extractive matters represent the waste products of the active elements of the body, and exist in the blood as effete material in the way to be eliminated; representing what just now by a figure of speech I called the blood of yesterday. Of the fibrin I shall have plenty to say presently, and shall then explain to you why I consider it as an effete product in the blood. Of the extractive matters I know too little for me to say much; hardly an endeavor has yet been made by any competent physiological chemist to refer them to the several organs in which they probably originate. Doctor Franz Simon, who has done with them more than any other chemist, divides them according to their respective menstrua into water-extract, alcohol extract, proof-spirit extract; but (as I need hardly suggest to you) that is not the sort of division likely to be useful to us in our present subject: the only physiological division would be one referring them severally to the organs whose effete products they represent; showing such an one to be brain-extract, another muscle-extract, etc.

It is desirable, gentlemen, so far as may be possible in treating of blood-diseases,

to contemplate them in the manner suggested in the physiological retrospect I have made, and to take them in some such order as the following:

First. Diseases depending on morbid ingestion.

Secondly. Diseases depending on increase, arrest, or alteration of the excretions.

Thirdly. Diseases depending on modification of the blood's own growth and development.

By the foregoing quotation it will be perceived that our author ventures to think for himself, and carries some of his views beyond the doctrines of the day. How far he may be consistent with well ascertained facts, we leave the reader to determine. The book is well calculated to excite enquiry and stimulate the mind to further investigation; and this is saying much in favor of the work.

We give another specimen of Mr. Simon's style, and then leave the book in the hands of the profession. Speaking of the distinction between hypertrophy and inflammation he says—

In the chain of events which terminates in hypertrophy or inflammation; the first act relates to the influence exerted by the elements of the part on the materials of the blood circulating through it, and consists in an alteration (perhaps in hypertrophy only a quantitative alteration, possibly in inflammation also a quantitative alteration) in these changes which the part naturally works on the blood, as the indispensable condition of growth. The growing elements of the part—hurt by physical violence, or affected by extremes of temperatures, or thrown into rapid chemical changes, or over-burdened with their own specific stimuli from the blood—strive to grow more or to grow differently than in their previous state. The sudden origination of this effort (as it occurs, for instance, after mechanical injury) suffices apparently in itself to derange the currents of the capillary circulation, to flood the tissues with serous exudation and to lead to those microscopical phenomena which are considered pathognomonic of inflammation.

The condition of a part in which the organic changes are thus accelerated (whether in the form of hypertrophy or inflammation) is capable of inducing in the muscular arteries which lead to it, a state of enlargement or increased perviousness, which determines to the part a larger afflux of blood; and it is in a high degree probable that the manner in which this enlargement occurs is by the way of what we technically call reflexion; that a certain impression from the part is conveyed centripetally by its sensitive nerves and is responded to by a return current through the motory nerves of its artery; that the specific influence of this return current is to induce a relaxed condition of those muscular fibres which regulate the calibre of the artery, and by this relaxation to suffer an increased transit of blood to the inflaming or overgrowing part.

We have next to inquire what are the chief results which may arise in a part from an augmented determination of blood thither? what are the chief consequences of active hyperæmia? They vary most importantly according to the following differences:

1. The determination of blood, though over and above the usual supply, may admit of application according to the ordinary and healthy functions of the part. The biceps muscle of a blacksmith's arm receives perhaps as much blood as all the muscles of my upper extremity put together; but there is no blood wasted; all that goes there is turned to account, and contributes to the increased development of a normal tissue. Or,

2. The supply of blood may be more than can be used and appropriated by the organ so copiously supplied; and then it is that we get a continued superfluity of exudation pervading the tissue, and find that superfluity undergoing an independent development into certain shaped products—cells or fibres—foreign to the healthy structure of the part.

Now what I have just stated is the distinction between hypertrophy and inflammation; their general pathology has much in common; their causes are often alike; their modes of production identical. But in hypertrophy—however large may be the supply of blood, it all goes to the true nourishment of the organ; goes to increase the number of its natural molecules; while in inflammation all that is redundant goes to the formation of new products.

After what I have said of the pathological affinities of these two processes, it will not surprise you to be told that in many organs of the body hypertrophy and inflammation run into one another by almost insensible gradations; as for instance with secreting surfaces, where after a certain time that which produced at first a mere excess of secreted material presently causes to be mixed with that secretion more or less albumen, fibrin, blood, pus and the like.

We are very desirous to lay before the readers of the Journal other evidences of the great value of these lectures; but our space is too limited, and we must content ourselves by urging the profession to study the work with all due diligence, as it will be found much superior to many that are now being daily thrown off from the press. White, 53 Canal street, has copies for sale.

VI.—*A Practical Treatise on the Diseases of the Skin.* By J. Moore Neligan, M. D., M. R. I. A., Honorary Fellow of the Society of Physicians of Sweden, Physician to Jarvis street Hospital, etc., of the Dublin School of Medicine, etc.

Diseases of the Skin, especially of a chronic and obstinate character, are so seldom met with in New Orleans, that but little inducement is held out to the general practitioner to study their various forms and types. The fondness of our resident population for free and frequent ablutions, and the mild and genial nature of our climate, tend to diminish the diseases of the skin beyond a doubt in our midst; and when cases are imported from abroad, they yield most readily to the ordinary treatment.

Dr. Neligan has made the diseases of the skin a speciality, and his opportunities for acquiring a thorough knowledge of this branch of medicine has been both extensive and well improved. A practical treatise, like the present, was truly a desideratum, both for the general practitioner and the medical student. Concise and clear in arrangement, it will meet fully the wants of the profession, and become vastly more popular than other more elaborate and scientific works on the subject. We love small books, and Neligan's is fashioned exactly after our taste. The subjects introduced into the work and discussed, are too numerous to require special notice; and after having examined the book, we can conscientiously commend it to the medical profession. It will bear a close examination, and will supply just the kind of knowledge required to practice medicine successfully. Besides, it is eminently practical in its aim and objects, and will therefore command the attention of the profession. We again commend it to our medical friends.

It may be found at Steel's, 60 Camp street.

Part Fourth.

MISCELLANEOUS MEDICAL INTELLIGENCE.

I.—*Large Doses of Opium in Dysentery.*

BY DR. STARR.

In the *Southern Medical and Surgical Journal*, for December, 1852, we find some sound practical suggestions on the treatment of acute dysentery, by Dr. Starr; among which he makes the following.

(*Ed. N. O. Med. Jour.*)

There is no confidence to be placed in an ordinary or medium dose of opium when the patient is suffering the effects of violent inflammatory action, the tortures of pain, or the depressing adynamic influences of malignant disease. The dose must be proportionate to the emergency of the case. I suggested from two to four grains, but this should not be considered the limit; this quantity is rather the minimum than the maximum; circumstances must determine the precise amount. In dysentery, if the pain, fever and flux persist, they are sufficient evidence that enough has not been given; six grains are not too much in such cases. The antiphlogistic virtues of opium seem generally to be imperfectly known or understood, or if known, not appreciated and applied. All agree in admitting its usefulness as an anodyne, as a soother of pain and promoter of sleep, etc.; but who administers it with the view of overcoming fever, or who looks to it principally to subdue some severe forms of inflammation. Yet what diaphoretic will produce such certain and general opening of the pores, and genial moisture of the surface?—what will so equalize the circulation?—what so control the heart and arteries?—and what afford such suspension of pain, thereby breaking the chain of the morbid actions of inflammation? Fever and inflammation cannot well persist under such circumstances—under the effects of full doses of opium.

To carry out more effectually the suggestion above made, in relation to the indications of treatment, it may be often proper to resort to one efficient bloodletting, in cases where there is much fever and no want of strength. This will render the system more susceptible to the favorable influence of opium, which now, if properly administered, will never fail to mitigate, and seldom to relieve entirely, the sufferings of the patient. When this is done, the use of opium is not to exclude other substances as auxiliaries; such, for instance, as calomel or oil, when they are needed, or sugar of lead and other astringents, when, after the subsidence of the inflammatory symptoms, the discharges remain too frequent and watery. These, with fomentations, blisters, enemata of watery solution of opium and starch, etc., may be resorted to; but opium in large doses, given either by the mouth or rectum, in the early stage of the disease, should be the leading remedy and chief reliance.

II.—*On the Crossed Transmission of Impressions in the Spinal Cord.*

BY BROWN-SEQUARD.

Numerous experiments which I have performed have proved to the numerous physicians and students, who have seen the most important of them, that the impressions made on one side of the body are transmitted to the sensorium by the opposite side of the spinal cord.

It is known that Galen performed two experiments, which have been considered as demonstrating that there is no crossed action in the spinal cord. One of these experiments of Galen consisted in the transversal section of a lateral half of the spinal marrow. After this operation the animal was paralyzed in all the parts situated behind the section, on the same side, so that the palsy was on the right side of the body when the right side of the spinal cord was divided, and *vice versa*.

The second experiment consisted in a longitudinal section of the middle line of the spinal cord, so as to separate into two lateral halves the part of that nervous centre supplying nerves to the posterior limbs. After this operation the animal was able to walk.

Galen, in these two experiments, did not examine the state of the sensibility. He speaks merely of the voluntary movements. Nevertheless, his researches were considered in this century as completely proving that there is no crossing of action in the spinal cord, either for sensibility or for voluntary movement.

The following experiments will prove that there is a crossing of action for sensibility in that organ:

1. If a lateral half (*i. e.*, the posterior and the antero-lateral columns and the gray matter of one side of the spinal cord) is divided transversely at the level of the tenth costal vertebra, on a mammal, it is soon evident that the sensibility is much diminished in the posterior limb opposite to the side of the sections. On the contrary, the sensibility, instead of being lost, appears much increased in the posterior limb on the side where the section has been made.

2. If, instead of one transversal section of the spinal cord, two, three, four or many more are made on the same lateral half of that organ, the same results are obtained.

3. If, instead of mere sections, the removal of a part of a lateral half of the spinal cord is effected, the same results are still obtained. In performing this experiment, a longitudinal section, one inch in length, from behind forward, is made in the medial plane of the spinal marrow, and then two transversal sections on a lateral half are made at the extremities of the longitudinal section, so that a part of the cord is completely separated from that organ and afterwards removed.

4. If, instead of dividing entirely a lateral half of the spinal cord, a small part is left undivided towards the centre of that organ, the posterior limb on the same side becomes much more sensible, but the posterior limb on the opposite side remains very sensible, and sometimes it appears more sensible than in the normal state.

5. If, in performing the section of a lateral half of the spinal cord, the instrument goes a little too far, and divides also a small portion of the other half, then the posterior limb on the side of the complete section is less sensible than in the normal state, and the posterior limb of the opposite side loses completely its sensibility.

6. If the section of a lateral half of the spinal cord is made at the level of the second or third cervical vertebra, it is found that the sensibility becomes very quickly much greater in the parts of the body on the same side as the section, and on the contrary, the parts on the other [illegible] come evidently less sensible.

7. If, after a section of a lateral half of the spinal cord at the level of the eleventh costal vertebra, another section is performed on the other side of that organ, at the level of the sixth costal vertebra, so that the two lateral halves are divided, then sensibility in most of the cases is lost on both sides. Sometimes it retains a very high degree of sensibility, more particularly in ths posterior limb on the side where the spinal cord has been divided at the level of the sixth costal vertebra.

8. If two sections of lateral halves are made as in the preceding experiment, but at a greater distance one from the other, on the right side, for instance at the level of the twelfth costal vertebra, and on the left side in the cervical region, nearly the same results are obtained as to the posterior limbs, but the sensibility is increased in the right anterior limb, and it remains very evidently, but much diminished, in the anterior limb.

9. If a longitudinal section is made on the part of the spinal cord giving nerves to the posterior extremity, so as to divide that part into two lateral halves, then it is found that sensibility is completely lost in the two posterior limbs, although voluntary movements take place in them.

10. If a similar separation of two lateral halves of the spinal cord is made on the whole part supplying nerves to the anterior limbs, then it is found that sensibility is lost in both these limbs, and that it is only slightly diminished in the posterior limbs.

11. If the same operation is done as in the preceding experiment, and afterwards if a transversal division is made on one of the lateral halves, in the place where it is separated from the other, then it is found that the posterior limb on the side of the transversal section remains sensible, and that the other posterior limb loses its sensibility.

These experiments prove very clearly that the sensitive nervous fibres are crossed in the spinal cord. The 9th, 10th and 11th demonstrate directly the crossing. In these experiments the crossed fibres are all cut and sensibility is lost. This fact appears to prove that all the sensitive fibres cross each other; but it will be easily understood that on account of the loss of blood, and of the general diminution of sensibility produced by the excessive pain of the operation, if there are some fibres which remain without crossing, they are insufficient to give sensations.

As to the experiments consisting in transversal sections of a lateral half, they prove that sensibility is much diminished in the side of the body opposite to that of the section; consequently they prove also that there is a crossing of a great part of the sensitive fibres.

The fact that transmission of impressions made on one side of the body takes place, at least for a great part, in the opposite side of the spinal cord, is proved evidently by the eight first experiments, but much more by the 7th and the 8th experiments, in which it is found that after a section of a lateral half of the spinal cord, sensibility remains on the same side, and that it is nearly entirely lost after a second section of the other lateral half in another place.

If most of the nervous sensitive fibres are crossed in the spinal cord, then it is not exact to admit that the crossed paralysis of sensibility in cases of diseases of the brain, is explained by the crossing of fibres which exists in the pons varolii and in other parts of the encephalon. Many opinions have been proposed as regards the place where the sensitive nervous fibres make their crossing in the encephalon. According to some pathologists, this crossing takes place all along the medulla oblongata, the pons varolii, tubercula quadrigemina, and the crura cerebri. In all these organs there is truly a crossing of fibres, but we do not know what are these fibres. Charles Bell believes that the crossing of the sensitive fibres takes place in the posterior surface of the medulla oblongata, in a great part of the length of the fourth ventricle. Longet supposes that this crossing exists at the anterior border of the pons varolii, where the two processi cerebelli ad testes cross each other.

My experiments prove that if there are some fibres coming from the trunk and from the limbs which do not effect their crossing in the spinal cord itself, their number ought to be very small. Therefore the fibres which are found crossed in the encephalon are not sensitive fibres coming from the limbs and from the trunk, as all physiologists have supposed they were.

My experiments were made on many different species; guinea pigs, dogs, cats, sheep and rabbits. In all the same results were obtained.

To ascertain the degree of sensibility, I used various modes of excitation; mechanical, galvanic, physical, (i. e., warmth and cold) and chemical. I constantly compared the degrees of sensibility in the parts of the body situated behind the injured portion of the spinal cord, with the anterior parts of the body, and particularly with the face. It is thus that I have been able to ascertain the existence of an increase or of a diminution in sensibility.

Sometimes I have given chloroform to animals having had a lateral half of the spinal cord divided in the cervical region. I have found that complete loss of sensibility appeared at first in the parts of the body opposite to the section of the spinal cord, the head and neck, and at last in the parts of the body behind the section of the cord, on the same side. This experiment, as well as many others, prove undoubtedly that there is an increase of sensibility in these last parts. I will try in another article to explain these hyperæsthesia.

I believe I am entitled to conclude from the facts above related the following:

1st. That most of the impressions made on one side of the body are transmitted to the sensorium by the opposite side of the spinal cord, so that the impressions on the left side of the body are transmitted by the right side of the spinal cord, and *vice versa*,

2d. That the assumed function of the crossing of fibres in the pons Varolii, and the neighboring parts, does not belong to these fibres, but to the fibres of the spinal cord, all along which they cross each other.

(*Phil. Medical Examiner.*)

III.—*Mineral Springs.*

Dr. John M. Bell, of Philadelphia, who is preparing a work on Mineral Springs, more especially on those of the United States, is desirous of procuring, at an early day, all accessible information on the subject. With this view he requests his professional brethren to transmit to him all the facts in their possession which may throw light on the chemical composition and curative powers of the waters of the springs in their respective neighborhoods.

Proprietors of these waters would oblige us by sending to Dr. Bell authenticated accounts on these points, and also of the topography of the springs, and the roads by which they are approached.

(*Ibid.*)

N. B. Dr. B. is very desirous to obtain some further knowledge of the virtues and qualities of the Hot Springs of Arkansas, and those of Cooper's Wells in Mississippi. (*Ed. N. O. Med. and Surg. Jour.*)

The New-Orleans Medical and Surgical Journal.

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Before these lines shall have been read, another year, with its hopes, its anticipations and its dreaded realities, will have come upon us, pressing us onward towards that future, which many who are now active and full of promise, shall never realize. In looking back upon the events and the trials of the year which has just closed, let us gather wisdom and learn patience, and then go forth to meet the future, thus enlightened from the past, with that calm heroism and firm determination to grapple with the world as we find it, and strive to add wisdom to virtue, and thus merit, if we cannot obtain, the approbation of the wise and the just. To the Physician, close observation, deep reflection and a patient waiting upon nature, can alone impart wisdom and enable him to discharge the high and solemn duties appertaining to his mission. To assist him in these studies—to suggest matter for reflection, and to lay before him the thoughts, the experience and the reflections of others, will be our duty, as it shall be our pleasure, as a journalist. In striving to do this, we invoke the aid of the medical profession throughout the South-west; we turn with confidence to our confrères for kindness and encouragement,—for that indulgence which can alone inspire confidence in ourself, and enable us to do justice to the cause which we have espoused.

We can only promise diligence in collecting and collating the most recent and reliable medical intelligence, with an eye directed exclusively to the interests and wants of our reading subscribers; and if we fail to please all, we shall not feel discouraged, but continue our labor with a singleness of purpose which should secure us at least the respect and confidence of those who may not sanction our course.

HEALTH, MORTALITY, &c.

We have but little to remark under this head; the health of the city has steadily improved since our last publication up to date; and if we regard the immense number of strangers now in our city, the mortality will be found low, almost beyond precedent. Added to which, we have almost daily thousands of immigrants flocking to our shores, in search of a new home, and yet we have escaped, thus far, in a great measure, the ravages of ship or typhoid fever. This can only be explained from the fact, we believe, well attested, that the immigrants this season comprise a better class of subjects than usual,—are better supplied with the requisites for a long voyage, and consequently reach our levee comparatively free from disease.

Our permanent population, natives and those fully acclimated, have been exempt from every species of disease; it has only been the inconsiderate—the stranger and the dissipated among us, who have experienced the heavy hand of affliction, sickness and death.

Below we append our usual weekly mortality.

DEATHS IN THE CITY OF NEW ORLEANS,

For the 9 weeks ending Dec. 18th, 1852.

1852	*Cholera.*	*Fevers.*	*Y. Fev.*	*Total.*
Oct. 23d,	11	75	51	204
" 30th,	26	89	62	246
Nov. 6th,	28	96	62	233
" 13th,	68	67	42	253
" 20th,	39	63	37	208
" 27th,	23	51	24	187
Dec. 4th	20	39	9	174
" 11th,	13	22	1	136
" 18th,	19	15	1	145
Total,	247	517	289	1786

Of this number 546 were under 10 years of age, and 224 colored.

For the nine weeks ending December 18th, the deaths average a little less than 200 per week, from all diseases; whereas those chargeable to Cholera and Yellow Fever were nearly equal. About one-third of the deaths were caused by the various fevers; and deducting those produced by accident, violence, etc., we may fairly conclude that at least one-half fell victims to some form of febrile disease.

Cholera, as will be seen, claims its number of victims, although but little predisposition to the disease seems to exist in the city at this time.

The Yellow Fever, which was confined almost exclusively to the Charity Hospital throughout the entire season, has disappeared; and we have now only some diarrhœa, dysentery, typhoid fever, a few cases of pneumonia, and catarrhal affections. For several weeks past half the community has been afflicted with catarrhal disease, attended with violent sneezing, hoarseness, headache, and sometimes troublesome cough, accompanied with more or less fever and great soreness throughout the chest. The cause seems to be atmospheric, and no precaution could guard us against the disease. It showed but little disposition to terminate in actual bronchitis, pneumonitis, or other serious pulmonary diseases. All ages and colors were alike sufferers by this catarrh: it usually persisted for two or three weeks in despite of the mildness of the weather and the most careful nursing. At present it seems declining, and we hope ere long it will entirely disappear. We do not know that it has proved fatal in a single case. The city is otherwise perfectly healthy, and the weather as mild as spring.

QUININE AND OPIUM IN THE COLD STAGE OF PAROXYSMAL FEVERS.

We have long thought it a desideratum in practice to find out some mode of treatment by which the Practitioner may be enabled, when summoned to a case of remittent fever, *during the cold stage*, to cut short the paroxysm—to extinguish the intense febrile reaction, which usually succeeds the cold stage of our summer and autumnal diseases. When called upon to visit a patient, and we find him shivering with a chill—with blue lips and fingers—goose-flesh, shrunken surface— quick, small, feeble pulse—more or less nausea—great thirst—and in a word, laboring under the usual distressing symptoms of the cold stage of fever, we usually content ourselves with warm foot-baths, tepid drinks, etc; but these domestic remedies serve only to hasten and augment the reaction; they do not even abridge the febrile paroxysm which must succeed the chill.

We are about to recommend measures which will meet the indications so much desired in these cases, such as we have frequently tested in hospital, and sometimes in private practice. Macintosh practised blood-letting in the cold stage of fever; but if this treatment proved beneficial in some cases, it operated injuriously in others; and thus, by common consent, venesection in the cold stage of fever, has been abandoned in the United States, as far as we know.

Full doses of quinine and opium, given in the midst of the cold or shivering stage of fever, will be found both safe and efficacious in a large majority of cases. It puts a stop to the cold or chilly stage, increases the fulness, whilst it diminishes the frequency of the pulse, allays, as by enchantment, the violent neuralgic pains with which the head, back, limbs, etc., of the patient are tortured, equalizes the circulation, promotes free perspiration, and rarely fails to extinguish the intense febrile reaction, which, without the interposition of our art, rarely fails to succeed the cold stage of our autumnal fevers. Opium and quinine, thus administered, seem to restrain the violent action of the heart and arteries, the former of which is curbed, so to speak, by the combination, and held within its normal force and frequency. The patient passes at once from the chill or chilly, into the sweating stage—characterized by a full, soft and regular pulse, a warm, moist and relaxed surface, absence of thirst, headache, restlessness, and the usual concomitants of intense febricity. He exchanges great suffering, pains and uneasiness, for sweet and refreshing slumbers, for the most part, from which he awakes at the end of a few hours, perfectly delighted with himself and his Physician.

By this treatment we arrest the paroxysm more certainly than if we had administered the quinine during the apyrexia; the series of morbid phenomena by which a paroxysm of intermittent fever is characterised, is broken up; and the quinine and opium appear to arrest the disease definitively, by extinguishing the germ of morbid action. The dose in the instances recommended should be

from 20 to 25 grains of the sulphate of quinine, and from 2 to 4 grains of opium, in combination; it may be repeated in severe cases, but in diminished doses, after the first three or four hours.

Quinine and opium, given at the moment advised, are less likely to disturb the encephalon than might be suspected by those who have never ventured to try it in the cold stage of fever, to adopt a misnomer. Treated after the method above recommended, the paroxysm is broken up, and will rarely recur the second time, although we may withhold the further use of the remedies. Under our plan, convalescence becomes speedily established, the patient rapidly recovering his appetite and strength. Many, and we include ourselves, venture to administer the quinine and opium during the height of the febrile excitement, with the most beneficial effects; but it must strike any reflecting mind, that if opium and quinine, given during the stage of exacerbation, exercises a sedative influence over the heart and arteries, how much more rational and easy to keep down such febrile excitement by interposing our remedies before all the links in the chain of morbid causes which constitute a febrile paroxysm, shall become firmly united!

DEATH FROM ASPHYXIA,

Caused by the accidental introduction of an Orange Seed into the Larynx.

REPORTED BY T. O. MEUX, M. D., NEW ORLEANS.

The fatal termination of the case reported below, should induce us to watch such patients with assiduous care. This little patient was seen by Dr. Stone, when he was comparatively easy and free from all alarming symptoms; but the danger of suffocation recurred in paroxysms, and in one of these attacks he expired before medical aid could be obtained. We give the details of the case in the language of Dr. Meux.

On the 10th instant I was called upon to visit ——— Frasier, a sprightly boy of six years old, boarding at Mrs. Carney's boarding house, Magazine street, who was said to be threatened with suffocation from having, as was believed, got an orange seed into the windpipe, while eating an orange, some five or six days previous, after which there was a constant embarrassment of respiration, and on one or two occasions threated suffocation.

Upon my arrival I found the patient partially relieved of the symptoms of suffocation; yet the respiration continued of a very distressing character, and upon learning the state of the case, I immediately proposed the aid of a Surgeon, and suggested Dr. Stone should be instantly called. Upon the Doctor's arrival and examination of the child, and after hearing a history of the case, he proposed the administration of an anodyne for the night, alleging, in reply to the suggestion of the operation of tracheotomy, that it was a grave operation, and that we might not succeed in finding the offending irritant—promising to see the case the succeeding morning.

I heard nothing more of the case until about one o'clock on the 12th, when I was again summoned in haste to see the little sufferer; upon my arrival the child was a corpse; he had expired in a paroxysm of suffocation, occasioned by the orange seed being forced into the glottis.

The mother of the child and other relations were on their way to California to join his father, who had preceded them, being anxious to satisfy their minds as to the cause of death, insisted on a post mortem examination, which I made in company with my young friend, Dr. Reynolds, and as was anticipated, found the orange seed so firmly impacted in the glottis, as wholly to preclude the passage of air.

New Orleans, Dec. 17, 1852.

ABSTRACT OF DISCUSSION ON TYPHOID FEVER,

At the sitting of the Physico-Medical Society of the 20th November, 1852.

Dr. Stone mentioned having of late seen on some of the plantations in the neighborhood a number of cases of Typhoid Fever. This complaint, he remarked, had become of late years more prevalent in the South. The disease, he said, had no special pathology. It seemed to run its course without much interference being required. The most indeed needed was good nursing. He had seen and heard of different modes of treating the negroes on the plantations in the South affected with this complaint. Those who had tried bleeding were compelled to abandon it when they found they were loosing all their patients. Some had used quinine; and several of these also abandoned it afterwards, not finding it to suit the purpose. Those who had been treated with large doses of this medicine, with the view of breaking up the fever, he found from all he could learn, generally got worse. While those who had got some gentle diaphoretic medicine, such as liquor ammoniæ acetatis, and who were otherwise judiciously nursed, rarely failed to do well. Even very little purgative medicine in these cases frequently produced injury of the intestines. His conviction therefore was, as above stated, that patients, especially negroes, who had been treated with most vigor did worst; and that on the plantations where least had been done, the disease was generally got over after a period of from ten to twelve days of sickness.

Dr. Fenner, who followed, went at some length into the subject of Typhoid Fever, and fevers generally. These he regarded as but modifications of one another; the difference depending upon circumstances that prevail at the particular period and place where these show themselves, and not on a difference of cause, as is generally believed. They all, he held, had their origin in one and the same cause, and this, whatever it be, was found on experience to be best combatted by the exhibition of large doses of quinine; which, if exhibited with a little opium, rarely fails to cut one and all of them short; and this was as much the case in that form where the fever was continued, as in any of the

other forms where the fever was intermittent or remittent, or yellow fever, in each of which this treatment was acknowledged to be of so much service. In reference to what had been said of those who had tried this particular treatment in Typhoid Fever and without benefit, he said it would be found that they had been administering it usually in too small doses at a time. To give thirty-six grains in separate small doses in the twenty-four hours, produces altogether a different effect upon the disease to that of giving the same at once, as he recommended it should. He had had an opportunity now of testing this method in several cases of Typhoid Fever; and in all the cases but one of these held out beyond the fourth day. The most of them commenced with a distinct chill, which then passed into continued fever. He is strongly convinced, that if from twenty to twenty-five grains of quinine be given at the outset of typhoid fever, it will cut it short; and mentioned in support of his own experience those of Dr. Dundas of Liverpool, and Mr. McEvers in Ireland, both of whom had published the results of this treatment on the worst forms of Typhus fever in these parts of the world, and as they testified, with marked advantage; such as indeed the usual mode of treatment could in no way compare with. The subject, he remarked, was now commanding attention, and something further might soon be expected from those who here and elsewhere have taken it up.

Dr. Stone replied, that his observations had compelled him to differ widely from Dr. Fenner, both as to the origin and treatment of Typhoid Fever; and he also differed from him when he thought but little good was to be derived from studying the pathology of the different diseases he had been referring to. The complications of Typhoid Fever, such as the inflammation of the glands, when that occurred either at the outset, or as the result of the disease, require a particular kind of treatment different from that which is required in other kinds of fevers where no such complications are met with. There is one thing he had noticed in regard to giving quinine in Typhoid fever, and which may in some measure account for any benefit that might be supposed to arise from that mode of treatment,—the patients are otherwise usually left alone and not made to have too much of purgatives and emetics; and perhaps the former is less injurious here than these latter, injudiciously administered as they frequently are in these cases. When cases, he said, commenced with intermittents, it would be all well enough to give quinine; but in those cases that do not thus commence, it is not as beneficial; and this particular fever, which commences and goes on gradually without these intermissions, could not be broken up by this or any other treatment he knew of. The most that should be attempted was to watch the symptoms, and by proper medical treatment and nursing, mitigate these till it ran its course.

Dr. Fenner wished it understood, that he did not in his remarks in any way wish to under-estimate the value of pathological distinctions in this disease; but he was satisfied that many of the changes which were produced in the organs of the body were the result of the disease and not the cause, and were altogether secondary in their occurrence. He believed the fevers he had been referring to had their origin in the system, which was deranged,

and that this, when not cut short, may lead to all the mischiefs found in the abdomen and other parts after death. His object was to have more attention paid to the cutting of them short, as he believed could be done, and there would then be less occasion for discriminating the nicer pathological changes than now. The most of fevers commenced with a chill, and there was usually a recurrence of that. This was more or less true of what was called continued fever; and if what Dr. Stone had said regarding the indication for quinine be correct, he did not see how, even on theoretical grounds, he should reject and condemn it in this complaint as he did.

Dr. Hunt was surprised that Dr. Fenner should say that all fevers are the same in their character, and that they result from the same cause. But it would be noticed that all the cases he had referred to had commenced, according to his own showing, with repeated chills; hence the use of quinine in such. There are, he said, distinct classes of fever admitted by all authors of repute; while the gentleman says they all originate in the same cause, and hence the same kind of treatment will suit in each. Sir, he continued, I have heard of barber's chair that fitted all persons, but not of all patients being cured by one mode of treatment. The lancet often is necessary when hyperæmia exists; often, too, necessary before the Physician dares to introduce quinine into the system; and throughout, according to the condition, so must the case be treated. The study of the pathological condition of the system is the true mode of proceeding. To do otherwise sets at defiance every principle of scientific physiology. Dr. Hunt made several other scientific remarks condemnatory of the doctrine held by Dr. Fenner, and was followed by Dr. Stone, (who in answer to some interrogatories put by Dr. Fenner was again called up, repeated that he regarded Typhoid Fever as a specific disease; as specific as any of the eruptive fevers are; and, that like these, when it once is set fairly in, it runs its course. Different efforts, he knew, had from time to time been made to cut it short, especially in the North, but he knew as well that these had failed. It was not, he said, unreasonable to suppose, that in the South a particular miasma or poison may prevail, and produce a more or less distinct disease, and that this is different from the genuine Irish form which we sometimes see imported. This new disease first sprung up in some of the older sections of the country, and has been spreading of late years in the newer sections also. When it attacks a patient, it appears to begin as a specific disease of the system, and in its progress, its injurious influence appears to be determined more especially to the mucous membrane of the intestines, and with as much certainty as the poison which produces the pustules of small pox is to the surface of the body.

COMPLIMENTARY TO DR. MACGIBBON.

At a meeting of the Physico-Medical Society, held December 18th, 1852, a beautiful and costly case of Obstetrical Instruments was unanimously voted Dr. Macgibbon, the Recording Secretary of the Society, as a testimonial of good feeling for the able and satisfactory manner in which he had performed the duties of Recording Secretary for the last three years.

HEALTH OF THE COUNTRY.

Typhoid Fever—Abortive treatment thereof by Quinine—Efficacy of the Cold Douche in Congestive Fever, illustrated by cases, in a letter to the Editor.

BY A. PATTON, M. D., MISS.

The summer is past—the Physician's harvest is ended, and now is a favorable time to review our labors of the past season; and if our experience, the Southern Physician's best text book, is found to be in the least degree valuable, we should obey the Scripture injunction, and not "hide our light under a bushel," but give it to the profession through some of our excellent Southern Medical Journals, so that all may learn from each others observation.

Our country and neighborhood have been visited by an unusual amount of disease during this past summer and fall; much more than has occurred any season since 1844; but I am glad to be able to state that the mortality has been far less in this vicinity than occurred during that year. The fatal cases that year were generally from bilious remittent and congestive fevers; this year the same character of diseases have prevailed to a considerable extent, and in my practice with but one fatal case, and that not seen until there was profound congestion of the brain and lungs. Our remittent fevers yield more readily to a proper treatment; which consisted of first, a small purgative dose of calomel and blue mass or rhubarb, followed by an aperient, if necessary. We avoided active purgation in all cases. Infusion of serpentaria and spirits nitre were used as a diaphoretic, and as soon as a slight remission occurred, we gave to an adult from 20 to 30 grains of quinine, with a quarter or half grain of morphine, repeating the quinine every three or four hours, until the fever subsided; then kept up medium doses of quinine for a few days, to complete the cure. This treatment never failed in any case within my observation. Excellent effects were derived from ice taken into the stomach in lumps; also sponging the surface with cold water when the skin was dry and hot. I have treated 13 cases of true Typhoid Fever during the season, with one fatal termination. The disease exhibited the usual phenomena in such cases, and it is unnecessary for me to refer to symptoms, except to state that considerable tenderness on pressure over the right iliac region was experienced in every case, with a gurgling sound. The disease ran its course in from 15 to 42 days, with a very tedious convalescence; these patients retained their strength astonishingly, though there was great emaciation. I adopted the following treatment:

During the first four days all the abortive means advised by Dr. Fenner and others, were, I conceive, most faithfully employed; quinine was given in doses from 20 to 40 grains, repeated *occasionally* according to effects. I gave the *veratrum viride* a trial, and although it certainly reduced the frequency of the pulse, and greatly *reduced the heart's action*, yet it failed to arrest the disease; still I am inclined to believe that the remedy will be found useful in some diseases. In this first stage I gave one or two small doses of calomel, followed by aperients, if necessary, though I found it important to watch the effects of purgatives, and after the first few days relied on charcoal and mag-

nesia to open the bowels, assisted by enemata. After giving the abortive treatment a fair trial, the disease still progressing without any beneficial change being effected, I then calmly informed my patient that he labored under a *very peculiar fever*, which we term typhoid, and that it would run its course in spite of all the remedial measures which could be used, perhaps confining him to the bed 15 days, or more likely 21, and probably 42 days. This to an industrious and energetic man was a very bitter dose, but he was compelled to swallow it. I *watched* him by day and prayed for him by night, and gave medicine in small doses, and after a long time, all my patients, save one, recovered. But to continue with the treatment—I allowed ice, and as nutritious a diet as they *would* take; and to relieve the intestinal disease, I gave in every case small doses of oil of turpentine, which I regard as being the most important and valuable remedy used in these cases; it seemed to exert a most happy effect, and unlike its operation when given in some other diseases, it never produced any bad effects.

I therefore express my deep conviction, that oil of turpentine in doses of from 5 to 15 drops, in mucilage, repeated every three or four hours, is one of the most valuable, if not the very best remedy that can be used in Typhoid Fever; and although it does not "break the fever," yet I think it prevents the patient from dying.

I also invariably apply a blister to the abdomen in the advanced stage, and if it gets well too soon, re-apply it. As an aperient, I prefer charcoal with magnesia, assisted, if necessary, by enemata. I commence supporting the strength very early by stimulants, if they are not contra-indicated. If there is much stupor, I prefer carbonate of ammonia, and indeed I usually give it the preference over all other stimulants in this disease. If serious local inflammations occur, which often happens, I control them by the same means which I would resort to if no typhoid fever existed, with some slight modifications.

I shall now proceed to give some account of the congestive cases met with this season, and the mode of treatment adopted. It is, however, unnecessary to minutely describe these cases, as the profession in the South are fully acquainted with all the phenomena usual in such diseases. I will state that I have seen five cases during the summer, four of which presented all the alarming symptoms always accompanying the worst form of the disease. Three of these four cases were promptly relieved by a treatment, which, although not new, yet I am certain that many Physicians entirely neglect the remedy, and allow their patients to die without resorting to the treatment. I allude to the cold douche as a means of producing reaction in congestion. We find nothing in the books in regard to the remedy that would warrant us in attributing to it the great value which it undoubtedly possesses. I am now fully warranted by actual experience in affirming, that it is the most certain and safe remedy in the diseased conditions alluded to, known to the profession; and I am fully sustained in this opinion by several distinguished gentlemen, who have treated on the subject through medical journals—I refer to Professors Patton and Barbour of St. Louis, and Doctors Fearn of Alabama and Richmond of Indianapolis, and others.

As a remedy for poisoning with opium, its value is, I believe, universally acknowledged. I have myself employed it in three cases of this kind with the most happy effect. But it is its truly beneficial effects in Congestive Fever to which I wish to direct the attention of the profession at this time. I have said that it is the best remedy in such cases known to the world. I say it because I have carefully compared the effects of other remedies with the effects of cold water. I have every season during the last twelve years treated more or less Congestive Fever, and it is pretty certain that I have had an opportunity of observing the effects of all the best remedies (for I *take* and *read* the *Medical Journals*) in this disease; and after this careful comparison I am prepared to reiterate the opinion expressed above. For even in the cases in which I have tried the cold water, I had fully and fairly tried the other remedies, and it was after they had failed—utterly failed to cause reaction and the patients were rapidly sinking—exhibiting all the marks of approaching death —parents weeping in despair—my hope almost gone—I say it was with all these growing circumstances surrounding the cases, that this most potent remedy was resorted to, and with what signal and astonishing success at least three grateful families in this community can testify. In two of the cases referred to I had the valuable assistance of my partner, (Dr. W. C. Payne) who fully concurs with me in all that I have said of the value of cold water in Congestive Fever.

It is not my intention to condemn the use of any other means to aid the cold water; on the contrary, I would earnestly advise the administration of large doses of quinine, either by the mouth or injection, both before and after the application of the water; also hot bricks to the extremities, which I deem sufficient in most cases. Many suppose that there is some danger to be apprehended from the remedy; I am satisfied that there is no danger in it; I have seen no bad effects from it of any kind whatever, and it is certainly much more pleasant to the patient than the hot irritating applications usually resorted to in these cases.

And now permit me, as a means of more fully illustrating the subject, to report a most interesting case, which occurred a few days since. On the 28th of November I was called in haste to see Henry D., aged 8 years. When I reached the patient, I found him far advanced in a most alarming congestive chill, his extremities were cold as marble, no pulse perceptible at the wrists, heart's impulse very feeble, tongue pale and cold, face and hands a livid paleness, features shrunken, respiration like a succession of deep, irregular sighs, stomach irritable—in short, the symptoms were all most unfavorable. I at once commenced a vigorous application of the usual remedies, and for a short time with some benefit; but soon their effect ceased, and the patient began rapidly to sink, which continued in spite of all my efforts. I had tried the boasted remedies usual in such cases, (except bleeding, and common sense would have taught even Mackintosh that that remedy was inadmissible) and all had failed; the family were in despair; death appeared to have marked the little sufferer for its victim; but in this dreadful crisis I prepared cold wa-

ter—no objections being made by the parents. I had the almost dying child divested of all his clothing and laid on the floor, face down, and poured from a large pitcher, at a height of several feet, two buckets full of cold water on the back; applying the water first to the occiput, then proceeding down the spine to its termination; then wiping him perfectly dry, I had him well wrapped in blankets and covered up warm in the bed, with bottles of hot water to the feet, allowing him to remain perfectly quiet; and in one hour and twenty minutes from the time the water was poured on him, full and complete reaction had taken place, the extremities were warm, pulse good, respiration natural, and in short the child was saved—saved, too, by cold water, when any other remedy would have been utterly powerless to do so.

I must close my long letter without noticing any other diseases which have prevailed here; though there has been much dysentery, and some fatal cases.

DANIEL DRAKE, M. D.

Physico-Medical Society.—Extract from the Journal of the proceedings—meeting of November 20, 1852. The following rosolutions, offered by Prof. J. L. Riddell, and seconded by Dr. E. D. Fenner, were passed.

Resolved, That this Society having learned of the decease at Cincinnati on the 5th instant, of Daniel Drake, the eminent teacher of medicine and medical author, will record in its archives a memento of the profound regret with which its members greet the sad intelligence.

Resolved, That the indomitable industry and perseverance, the good habits and the many virtues of Daniel Drake, have contributed to the fair name of our profession, and are worthy of remembrance and imitation.

The above is a just tribute to the memory of one who had labored for years to advance the science of medicine in the Valley of the Mississippi—of one who had, by his writings and teachings, inspired the profession with something like self-confidence, and set an example of toil and devotion to the study of disease and climate worthy of emulation.

Dr. Drake died, we believe, before he had finished his second volume on the Peculiar Diseases of the Mississippi Valley.

PHYSICO-MEDICAL SOCIETY OF NEW ORLEANS.

At a recent meeting of this Society, Dr. A. F. Axson was chosen President for the ensuing year. This is at once a well-deserved and a graceful compliment to the talents and parliamentary accomplishments of Dr. Axson, who, we feel satisfied, will discharge the duties of his new office with dignity and impartiality. We congratulate our cotemporary of the "Register" on the high and honorable position to which his talents have elevated him.

LOUISIANA STATE MEDICAL SOCIETY.

The following named gentlemen have been appointed Chairmen of the various Standing Committees of the Louisiana State Medical Society, and are expected to report on the topics entrusted to the several committees during the annual session of the Society, to be held in March, 1853, in the Hall of the Medical College in this city.

1. Medical Education and the License Law—J. S. McFarlane, M. D.
2. Anatomy, Surgery, and Surgical Anatomy—B. H. Moss, M. D.
3. Physiology and Pathology—A. W. Ely, M. D.
4. Midwifery and the Diseases of Women and Children—N. B. Benedict, M. D.
5. Practical Medicine—T. O. Meux, M. D.
6. General Therapeutics, Materia Medica and Pharmacy—Howard Smith, M. D.
7. Meteorology and Hygiene of the State and its Vital Statistics—A. Hester, M. D.
8. Diseases peculiar to Negroes and to a Southern Climate—M. A. McLeod, M. D.
9. Adulteration of Medicines and the sale of Drugs and Nostrums—G. T. Browning, M. D.
10. Botany and Natural History—Josiah Hale, M. D.

CORRECTION.

MONTGOMERY, Ala., Dec. 5, 1852.

A. Hester, M. D.

DEAR SIR—In the twentieth line from the top, on the second page of my article "On the Use of Quinine in Continued Fever," published in the July number for 1852 of your Journal, the word "exacerbative," through a typographical error, is printed "acerbative." At the time the Journal was received and read, I did not deem it necessary to trouble you with a request to notice the erratum, for the reason that I supposed that the character of the error was so obvious and apparent, as to be at once recognizable to all who might read the paper. I have recently, however, been admonished, that such is not the case, and you will therefore confer a favor by making the correction.

Very respectfully,

WM. M. BOLING.

L'UNION MEDICALE DE LA LOUISIANE.

We regret to learn from Dr. Delery, one of the editors of this spirited and industrious monthly journal, that the *L'Union Medicale* will cease to be published at the close of the first volume. Want of punctuality in the payment of subscriptions is assigned as the cause of this suspension.

TYPHOID FEVER.

A. Hester, M. D.

Dear Doctor—I see Dr. Wilburn wishes a list of medical names as to the identity and non-identity of Typhoid Fever South. By reference to *Nelson's Lancet*, you can find my opinion as to the character, causation, etc., of the disease. We have it here in abundance ; quinine is death to it. I have made several autopsies lately, and their results, etc., are all in press and will be given to the profession soon.

That it is a disease sui generis, caused to some extent by the extravagant use of quinine, but generally of malarial origin, requiring better attention and less medicine than any febrile affection in the South, I am fully and strongly convinced.

Yours, truly,

H. A. RAMSAY.

Thompson, Ga., Nov. 8, 1852.

LITHOTOMY—BILATERAL OPERATION.

BY CHAS. DELERY, M. D., NEW ORLEANS.

This operation was performed the 23d November, 1852, on Alex. Lesseps, æt. 56, who had been laboring under calculus of the bladder for at least one year. About 22 days after the operation Mr. L. returned to his usual avocations. During the operation, a little over five ounces of chloroform were consumed, without any accident. The stone weighed 8 scruples, and is flat and hard. A few years ago Dr. Delery performed, with complete success, a similar operation on a child 12 months old. This case has already been reported in one of our back numbers.

TO SUBSCRIBERS.

To delay longer to call the attention of our subscribers to their unsettled accounts, would be to do injustice to our own interest and inflict a wrong upon those of them who have always promptly paid up their dues. Many—very many have received the Journal for two and more years, and because we cannot call upon them in person and enforce our claims, have neglected to remit us a single year's subscription. We trust few are so poor that they cannot pay the little sums due us for furnishing the Journal at our *own expense*. Will they suffer this state of things to continue ! Will they receive the Journal, and neglect, through carelessness, to pay for it ? We cannot afford to employ agents to call upon those who are in arrears to us ; this would be annoying to them and ruinous to us.

VACCINE VIRUS.

The Editor will hereafter keep a supply of *Vaccine Virus*.

REPORT OF THE CHARITY HOSPITAL,

(NEW-ORLEANS,)

For August, September, October and November, 1852.

We are indebted to the politeness of E. PORTER, *Asst. Clerk* of the Charity Hospital, for the following table.

	SEX.	AUG.	SEPT.	OCT.	NOV.
ADMISSIONS -	Males	1288	1303	1412	1356
Do. - -	Females	507	417	395	396
		——1795	——1720	——1807	——1752
DISCHARGES -	Males	1163	1141	1150	1003
Do. - -	Females	444	420	377	326
		——1607	——1561	——1527	——1329
DEATHS - -	Males	101	155	274	270
Do. - -	Females	26	36	39	54
		—— 127	—— 191	—— 313	—— 324
BIRTHS - -	Males	13	10	11	7
Do. - -	Females	7	8	5	7
STILL-BORN -		4	2	0	0
		—— 24	—— 20	—— 16	—— 14
NUM. REMAIN.		807	871	893	860

ABSTRACT OF A METEOROLOGICAL JOURNAL FOR 1852.

BY D. T. LILLIE & Co., at the City of New Orleans.

Latitude, 29 deg. 57 min.; Longitude, 90 deg. 07 min. West of Greenwich.

WEEKLY — 1852.	THERMOMETER.			BAROMETER.			COURSE OF THE WIND.	FORCE OF THE WIND, Ratio 1 to 10.	Number of Rainy Days.	Quantity of RAIN — Inches.
	Max.	Min.	Range.	Max.	Min.	Range.				
Oct. 28	84.0	65.0	19 0	30.10	29.85	0.25	SE.	3.10	3	5.400
Nov. 4	76.5	57.0	19 5.	30.12	29.95	0.17	N.	2.60	3	0.495
" 11	81.0	54.0	27.0	30.30	29.90	0.40	NE.	2.40	2	1.415
" 18	69.0	43.0	26.0	30.30	29.70	0.60	N.	2.15	1	1 930
" 25	79.5	45.0	34.5	30.25	29.60	0.65	E.	2.44	3	4.805
Dec. 2	68.0	44.0	24.0	30.37	29.90	0.47	NE.	2.28	1	2.245
" 9	73.0	45.0	28.0	30.10	29.90	0.20	S.	2.60	1	0.740
" 16	74.0	44.0	30.0	30.15	30.00	0.15	S.	2.50	3	2.670

The Thermometer used for these observations is a self-registering one, placed in a fair exposure. Regular hours of observation: 8 A. M., 2 . M., and 8 . M.

ADVERTISEMENTS.

WORKS

OF THE SYDENHAM SOCIETY.

(LONDON.)

The undersigned having received the appointment of "*Local Secretary*" of this Society for the Southern States, would respectfully invite attention to the valuable *Standard Works* which it publishes each year, and furnishes to subscribers, at *extremely low rates*. The annual subscription is only *five dollars*, for which, usually *three*, but sometimes *four*, valuable volumes of the best medical works, are furnished. The works of several of the last years are still to be had.

For further information, apply to the undersigned, who will receive subscriptions and have the works delivered with the utmost despatch. The attention of Medical Colleges is particularly invited to the rare opportunity here presented, of supplying their libraries with standard works, both ancient and modern.

E. D. FENNER, M. D., Local Sec'y Sydenham Society,
Dec. 16, 1851. No. 5, Carondelet street.

THE NEW-ORLEANS
MEDICAL AND SURGICAL JOURNAL.

MARCH, 1853.

Part First.

ORIGINAL COMMUNICATIONS.

I.—REPORT OF THE COMMITTEE ON MIDWIFERY AND THE DISEASES OF WOMEN AND CHILDREN.

BY WM. P. HORT, M. D., CHAIRMAN.

[*Concluded.*]

The last general remedial agent of which we shall speak is chloroform. When skilfully administered, this is an agent of almost incalculable value. The *fear* of pain prostrates the vital energies more than the pain itself; but when the two are conjoined, it would seem that human nature must succumb. When females read, and are told by those who have tested the remedy, that they can be rendered insensible to all suffering during parturition, they are delivered from the fear of pain, and this fact renders the system far more susceptible of the influence of anæsthetic agents. Professor Boling of Alabama has concentrated a mass of facts and opinions relative to the use of these agents, which he has presented to the public in an able and interesting article, published in the November number, 1851, of the New Orleans Medical and Surgical Journal. We are there informed that Professor Simpson of Edinburg, on the 19th January, 1847, first employed this plan of producing insensibility in obstetrical practice. Dr. Keep of

Boston introduced its use in the same practice on the 7th April following. The Professor then observes: "But about four years have elapsed since the announcement of the discovery, and yet, throughout the civilized world, by the members of the Medical Profession very generally, whether in the refined and populous cities of Europe, and our older States, or in the remote villages of our frontier settlements, the importance of the discovery is admitted, and the remedy frequently recommended and used."

He again remarks: "No person who has ever been submitted to the process of Etherization once, in parturition, that I have met with or heard of, would be willing to pass through the same process again without it."

There was a general opinion at one time, that this class of remedies simply produced a partial insensibility to pain during a period of stupor induced by the agent. This opinion is however at present rejected, as both in surgical operations, and during parturition, the pain is in some instances actually suppressed, without any sleep or stupor being induced, the patients being conscious all the time of what was going on, and retaining a perfect recollection of every thing that occurred while under the influence of the remedy. To produce this effect of relieving the patient from pain, Letheon, a very pure Sulphuric Ether, was at first employed, but it has yielded to Chloroform, which is considered a safer and more effective, as well as a more agreeable agent. The extreme severity of suffering which some women experience in parturition, renders almost invaluable the remedy in question. It should be as pure as possible, and always administered with great caution by an experienced practitioner. In a few instances, that may with propriety be called exceptions to a general rule, we are informed that the administration of Chloroform has either failed entirely to produce the desired effect, or has terminated fatally. There is reason to believe that these exceptions have been occasioned by an impure Anæsthetic, or an unfavorable condition of the system, or the want of judgment in the practitioner. Professor Boling quotes Dr. Channing, who states that "up to the time of the publication of his work, in 1848, there had not been reported a case in which, during Etherization in labor, any untoward circumstance had occurred." Professor Boling further says that "up to the present time (November, 1851) no death has been reported as resulting from Etherization in obstetrical practice; the few that proved fatal occurring during or after surgical operations.

We cannot speak too highly of this remedy, which, while it calms the mysterious fear and ever increasing anxiety of the woman, and

relieves her completely from physical suffering, does not impede in the least the natural muscular dilatations, and the expulsive efforts which nature requires in the hour of parturition. A most ridiculous objection has been made to the use of Chloroform in parturition, because the effect it produces of calming the fears and alleviating the pains of labor is said to be at variance with Scripture. When Geologists and Archæologists were exhuming truths and facts long lost, if ever known to the enquiring mind of the patient investigating philosopher, the clergy took the alarm, and inveighed against this innovation, which they termed *skepticism.* But error does, and ultimately ever will, succumb to truth. The geological developments and facts once so startling to the superstitious fears of timid priests, are now used as evidence to sustain the validity of the sacred volume. And just such is the case in relation to the effects of Chloroform, of which we have been speaking. In the 3d chapter and 16th verse of Genesis, we read as follows: "Unto the woman he (that is, God,) said, I will greatly multiply thy sorrow and thy conception; in sorrow thou shalt bring forth children," &c. We remark that sorrow is spoken of *twice* in this passage, *but without any allusion whatever to pain.* We therefore infer that sorrow has reference to parental feeling wounded, and to love alienated, and to affection crushed. Its meaning cannot be tortured so as to signify the prediction of physical suffering. Admitting the truth of the Mosaic history, we nowhere read of a change in the *physical* organization of the woman. On the contrary, we have every reason to believe that it was the same *before* as *after* the period of the alienation of the Adamic race from Deity. What would be the pains of labor, which are temporary and transient, to the inexpressible suffering of the mother who has had one of her sons murdered by a brother! But passing over this ancient record of Cain and Abel, let us for one moment think of a mother's sufferings, anguish and dismay, who, year after year may have to watch through wearisome days and nights, by the bedside of beloved children, gradually wasting away under the fatal grasp of unrelenting disease. Again, think of the mother's anxiety on account of her children, should they pass through the perilous ordeal of infancy. She knows the temptations to which they will be exposed, and she shudders at the fate that may await them. It requires but little effort of memory and imagination to complete this gloomy picture.

The physical pain then that a parturient female experiences, is not the result of an *absolute* and *universal* decree of Deity; but it is first to be referred to climate, next to habits of life, and above all, to that so

called civilization, which enervates by luxurious living the physical, the moral and the intellectual.

The influence of climate on the constitution and development of the female, is known to every member of this Convention. In Persia there are mothers at ten years of age, while in Lapland girls seldom menstruate before they are twenty years of age, and no anxiety is felt should the catamenia not be established before the twenty-fifth year. Where the climate favors early development, the pains of parturition are moderate and of short duration. With respect to the women of high northern regions, we have no positive information; but in its absence we infer that parturition is more protracted and probably more painful, without being attended with more than ordinary danger. Now, the habits of life must be considered in connection with climate. In all climates, those females who take the most exercise, either for pleasure or profit, produce the most vigorous and healthy children with comparatively a very moderate share of physical suffering. All experienced Physicians know that the greatest danger, delay, and physical suffering, are to be found in the walks of fashionable, luxurious life. It is a well known fact, that while such persons give birth with difficulty and great suffering to puny children, who are cut down, as the young buds and embryo fruits by the relentless frosts, the children of the working classes are robust, vigorous and healthy; in short, we there see the physical power which forms the bone and sinew of the body politic.

Amongst the Indians, it is a common custom for the women, when aware of the approach of labor, to retire to some secreted spot, where, aided alone by the God of Nature, through his natural laws, they are safely delivered; when they return to their homes to resume their accustomed duties.

The difference between the sufferings of negro women who work in the open air, and of those who are brought up in the house, is remarkable.

A young negro woman was seen by her owner, Dr. Meriwether, in the State of Georgia, washing clothes at a spring about one mile from home; being pregnant and near her full time, he reprimanded the girl for her imprudenee. Having spent the day with a friend, he found, on his return in the evening, the same girl finishing her washing, having in the meantime been delivered of her burthen. Feeling the pains of labor, she walked home, was delivered of a healthy child, and in three hours returned to the spring.

It is known to the Committee that a negro woman has been taken

in labor while working in the cotton field—she started for home, but when about half way, she was delivered of the child ; in about an hour, the women were returning at dinner time, when they relieved her, as far as was necessary. She walked home with them as though nothing had happened.

Instances equally remarkable amongst active, industrious white females in civilized life, might be cited ; but enough has deen said to establish the point we had in view. If severe physical suffering, such as is described by the French authors in strong language, had been decreed by Deity, it would be a law without exception ; no woman would be exempt. But this is not the case, as a vast body of facts could be concentrated to prove the contrary. It follows, therefore, that the *sorrow* spoken of in the decree of Deity is *moral* rather than *physical* suffering. From the latter thousands escape; in the former, all participate to a greater or less extent. When we speak of physical suffering, we speak comparatively ; we presume that parturition is necessarily attended with some pain under all circumstances and amongst all animals from the highest to the lowest, but the degree of suffering depends entirely on circumstances. Some probably suffer no more than men do in ordinary colic of short duration, while others *have doomed themselves* to indescribable suffering.

Deformity of the pelvis, which is productive of the most hopeless misery, is seldom seen amongst the working classes, and is probably not to be heard of in the experience and traditions of the Indians. We admit, however, exceptions to every general rule. Amongst some of the inferior species of the mammalia, we may meet with here and there, scattered through long intervals of time, a case of malformation, which makes parturition the cause of death. Such cases, we have reason to believe, are *extremely* rare. This deformity of pelvis is almost invariably found in the hot-beds of civilization, where luxury, dissipation and licentiousness riot in unlimited excess.

The practical inferences from these remarks will suggest themselves to every member of the Faculty who may be present on this occasion. A woman who is pregnant, should consider the whole affair, from its inception to its termination, as a natural process, common to all animals. She should be active in attention to her duties, when in doors or out of doors, disregarding temporary inconveniences and evanescent pains. In eating, the instincts of nature may generally be trusted, but the bowels should always be kept open and regular. Women while pregnant will suffer more or less annoyance ; and some suffer

much more than others, while to a third class the inconvenience is so slight as to give no cause for complaint. As a general rule, these annoyances and inconveniences will be greater or less according to the habits of the pregnant female in civilized life. Just as those persons who resist sea sickness with moral firmness, are the soonest relieved, so is it with pregnant women. Energy of character can accomplish much here, as every where else. The woman who flies to the bed or the sofa whenever she may experience nausea, or detect a nervous irritation, or feel a muscular pang, may expect prolonged and increasing suffering during gestation, and with gloomy apprehension look forward to the hour of parturition. We have dwelt on this subject at the risk of being deemed tedious; but the object of the Committee was to establish an important fact—that the *sorrow* spoken of in the Bible, to which every mother is doomed, signifies *moral* and not *physical* suffering. And that the degree of physical suffering is regulated entirely by circumstances; in short, that it is more a *conditional* than a *necessary* evil.

The *moral* suffering, which, according to Scripture, is the consequence of alienation from Deity, may also be greatly mitigated by the patience and resignation which a pure religion inspires. Where the physical, the moral and the intellectual are properly cherished and regulated, a mother has comparatively little to fear of inconvenience during gestation, or of pain and peril in the hour of trial; and committing her children to the care of Deity, with abiding confidence and resignation, her moral suffering becomes greatly alleviated, if not entirely obviated.

THIRD PART.

We now proceed to the third department of our subject—the consideration, or rather enumeration of the inconveniences or diseases peculiar to woman in the civilized state; such diseases being unknown, as a general rule, amongst people who are not civilized, as Indians and negroes. It is evident that in a discourse on this subject, condensation is necessary, and that while we advert to prominent points, all detail must be avoided.

The first serious inconvenience that the pregnant woman may experience is, according to the best authorities, Displacements of the Uterus. The causes may be summed up in a few words—the influence of the abdominal viscera, a distended bladder, protracted costiveness, etc., etc. Prolapsus, Retroversion, and various obliquities, are included under the general term of Displacement of the Uterus. In

these cases, a nice discrimination, based upon an experience of the symptoms peculiar to each kind of displacement, is very necessary, as well as accurate anatomical knowledge, to enable the practitioner to afford relief. Nausea and vomiting are excessively annoying to some women about the time that the uterus emerges from the rim of the pelvis —and in some instances this annoyance endures almost during the whole time of gestation. For this disagreeable affection various agents have been recommended and tried. We are of opinion that it is more prudent to let nature alone. Nature, as a general rule, is fully competent to carry on her own work, and if the Physician interferes with his nostrums, to assist nature, *as it is said*, ninety times out of one hundred, he will probably do more harm than good.

The enlargement of the abdomen is much greater in some women than in others. It may produce obstinate costiveness; dropsical affections in various parts of the organs; varicose veins of the lower extremities, which produce great deformity, and often considerable pain. In some cases there is no remedy, but time and patience; in others, relief may be afforded by bandages properly applied to sustain the uterus, and prevent its pressure on the bladder and rectum. Salivation occasionally annoys a pregnant female; how it is induced no one knows —therefore, to relieve it, must be rather the result of chance, than of art.

Various forms of deranged digestion sometimes prove very distressing. There may be an alkaline condition requiring acids, or the generation of superabundant acidity demanding alkalies. Fluor Albus or Leucorrhœa often torments pregnant women in civilized life. The most simple remedies with reference to cleanliness should alone be used during gestation. Cantharides, which so effectually controls this disgusting disease, is altogether inadmissible in the case of a pregnant woman.

Pruritus of the Pudendum may occasionally affect women who are not pregnant, but it chiefly annoys the pregnant woman. Professor Dewees has informed us that it can be relieved in twenty-four hours by the use of a strong solution of borax in water. He says that the appearance of the parts resembles the apthæ of children, which suggested to his mind the use of borax. Probably the experience of many Physicians present confirms this remark.

There is at one time a retention of urine, requiring the use of the catheter; and again a too frequent inclination to pass the urine, producing all the inconvenience of stranguary, without the pain. Supporting bandages are the best remedies, as before observed.

The most formidable condition of things we have ever witnessed, is when the female, a short time previous to the period of parturition, is attacked with convulsions, which are sometimes so violent as to threaten the immediate termination of life. Here, energy, patience, and a stern determination are absolutely necessary. When the pressure of the blood, in undue proportion, produces congestion in the vessels and sinuses of the brain, with frothing at the mouth, and a shuddering of the whole muscular system, the peril is great. Although nervous irritation is the primary cause of all the disturbance, it is now too late to calm *that* irritation ; the brain must first be relieved, by opening the temporal arteries—which being accomplished, we may then endeavor to calm the agitation of the nervous centres. The best and safest remedy, however, is the immediate delivery of the child; and any thing that can be accomplished by art, *without an increase of danger to the mother or to the child*, should be promptly and boldly resorted to.

The death of a fœtus in the uterus some days previous to parturition, creates difficulty and delay. The fact is easily recognized. Instead of lively motion pervading the uterus, there is sense of a dull, heavy weight, bearing alternately on one or the other side. In this case, it is of the first importance to keep the mother ignorant of the death of her child. None but sensible, confidential persons should be allowed to come near her, and every effort should be made, *without the appearance of effort*, to inspire her with confidence and hope. The practitioner must take care that the bowels and bladder are thoroughly evacuated preparatory to the commencement of parturition, and there is no case in which patience, calmness and firmness are more necessary. Women with the best formed pelvis, and a regular presentation of the head of the dead fœtus, sometimes experience very lingering and painful labors. The dilatation of the os tincæ and of the vagina is very tedious. The rapid abstraction of blood from the arm, so as to produce complete relaxation of the whole system, we have found to be the best remedy. When the head of the child fairly presents in the vagina, the assistance of the practitioner is important; his *hands* are probably the only instruments he will require.

There may be some other inconveniences attending the period of gestation, but we pass them over, and proceed to consider the difficulties *consequent* upon labor.

Profuse hæmorrhage sometimes occurs, and threatens immediate dissolution ; the means for arresting it are too well known in the Profession for us to allude to them. We think proper, however, to remark,

that when vitality is almost extinct after the hæmorrhage has been arrested, the infusion of warm blood from the vein of a healthy person, into a vein of the dying female, has restored life when hope had departed. This fact was at one time a subject of doubt, but we consider it now as well established.

Great inconvenience is occasionally suffered from the bad condition of the mother's breasts. We merely allude to the fact.

Puerperal Fever is sometimes very embarrassing. Gooch, at page 269, says, that the cause is unknown. We beg to differ in opinion. We think it may be traced to rough usage by an ignorant midwife, and to the absence or suppression of the lochial discharge. It generally ends, when fatal, in Peritonitis, and often when this is the case, all is over in forty-eight hours. There is the same continuity in the serous and mucous membranes, as there is in the nerves and fluids of the human system; hence the facility with which irritation at first, and then subsequently inflammation, may be propagated. We consider the idea of its being propagated by specific contagion as absurd in the extreme. This assumed fact could never be ascertained in private practice, but in a crowded ward of a hospital, we know that there may be a condition of the atmosphere, producing the same disease in different persons, who may, at the same time, be obnoxious to its influence. We consider inflammation of the uterus, which is treated of as a separate disease, to be the first link in the chain of Peritonitis, or Puerperal Fever. Resolute depletion by the lancet, and cathartics with counter irritation, we all know, are the only means of conquering these terrible sequelæ of parturition.

Puerperal Mania, the result of severe nervous irritation, is spoken of by the European writers. It generally disappears in the course of two or three weeks, and is occasionally fatal. Rest is, in this case the great remedy. There is ofteu a tendency to commit suicide, to prevent which, every precaution should be adopted. Active purgation is, in this predicament, the best remedy. The practice dates from the time of Hippocrates, who prescribed the Helliborus Niger. In Hooper's Dictionary we read, that the ancients esteemed it as a powerful remedy in maniacal cases. It is highly spoken of by Aræteus, Asclepiædes, and others.

A very obstinate complaint of women after parturition is Phlegmasia Dolens, which occurs in nearly about one month after delivery. The seat of the disease is one of the thighs, from which it radiates in different directions. From the shining white appearance of the swelling,

so different from what we see when there is inflammation, we are liable to be misled. The pain and tumefaction, and tension of the skin, clearly indicate excessive and morbid action somewhere. It has been supposed to be the result of inflammation of the absorbent glands in the groin, and the consequent diffusion of lymph in the cellular membranes. Bleeding, purgation, sudorifics and opiates are the remedies recommended by the highest authorities.

Inversion of the uterus sometimes occurs, because the uteruss does not contract after the birth of the child ; it may be produced by a very slight force applied to the umbilical chord, in the attempt to extract the placenta. This is sometimes a very serious affair, terminating in death. We have not time to speak of the diversities of the case, or the remedies that are necessary.

Having, as briefly as we could, disposed of the principal diseases and inconveniences prior and subsequent to parturition,—not one of them being, as we believe, decreed by Deity, but altogether the result of civilizatian, and departure from the great principles of nature and common sense, we shall conclude this division of our subject with a few summary remarks.

Where there is unfortunately great deformity of the pelvis, rendering the delivery of a live child by the natural passages impossible, it is evident that in case of marriage and impregnation, the danger both to the mother and the child must be extreme.

The best advice a family Physician can give under such circumstances to a female is, never to think of marriage. Nine times out of ten, the advice will be disregarded, but the Physician will have done his duty, and the woman must abide the consequences.

Many newly married females have great fear (much as the mother desires to have a child) of the period of parturition. Instead of calming apprehension by every rational argument, injudicious female friends frequently speak to them of the terrible suffering and great peril of giving birth to a child, until the impression is indelibly fixed in the mind that the suffering and the peril are the result of destiny, or of an arbitrary decree of Deity—and hence they have to meet an event common and natural to all females with a diseased imagination and a diminished vitality. We may readily imagine the result to be a tedious labor, often complicated with unpleasant and even dangerous circumstances. The female should be taught to believe that impregnation, gestation, and parturition, are as natural as the action of any other functions of the body, and if the idea of peril is suggested, let it be considered as an

exception to a general rule, and to an universal principle amongst all living entities. As to pain, the fear of every female may easily be relieved, as we have before stated, by being assured of the beneficial effects arising from the use of chloroform. All these are moral considerations.

When we see a lady rising at about eleven o'clock in the forenoon, after having taken her breakfast in bed, and then lolling in a kind of dreamy condition on a sofa, with a fashionable novel in her hand—we pity the woman, and we pity the child to whom she may give birth. This is the basis or foundation of difficulty. Its effects may be imperceptible at first, but after a few generations we shall meet with deformed pelves, rickety children, and a degenerating population. Early rising, exercising in the open air, and activity in the house from the garret to the kitchen, conduce to vigorous health in the mother, *which* is entailed on her children. We have seen some of these indefatigable women attacked, when pregnant, with yellow fever, and recover; and in one, two, or three months, give birth to vigorons and healthy children. So much for regimen.

The question of diet is conditional. Those who are indolent have the *depraved appetite*—which they *will* indulge. But the woman of energy and activity is generally exempt from every thing of the kind, and is satisfied with the ordinary substantial and wholesome fare of the family circle.

We have said enough to illustrate our views. Difficulties in labor arise from that civilization, where there is the greatest departure from natural laws; where luxury and indolence enervate the muscular power and depress the vital energy. We must hasten to the conclusion and say a few words about the diseases of children. So many admirable works have been written on this subject, which are familiar to the medical profession, that we do not deem it necessary to speak in detail of the various incidental diseases of childhood. There is one thing, however, well worthy of remark—the children of the laboring classes seldom die, in comparison with the children of the wealthy. It is not only that the stamina of the working classes is superior to that of other classes; it is also because *comparatively* no care is taken of their children; they are confided to natural laws, and are left to rough it, as the saying is, in mud and water and in the open air. By degrees they become robust and vigorous, with limbs, and muscles, and countenances, indicative of health and strength. We have known parents who have adopted the opposite course to lose child after child, whose escape from

a world of misery, *rendered so by improper treatment*, might rather be considered as a blessing than as a misfortune.

When we see nauseating drugs, and worse than all, *opiates*, administered day after day, and sometimes hour after hour, for every *imaginary* suffering, to an unfortunate child, a Physician of experience may readily predict the result. The very anxiety of the parent is the cause of its premature death.

Thank God, this is not an universal practice in the families of the independent and the rich, or it would be most calamitous to the interests of our country. It is altogether (as we said of the mothers) a *conditional* state of things, and not a rule absolute with children. The same argument used in the case of the mother, applies with equal force to the child.

Great principles are abiding, conservative, and operative. We cultivate plants and crops, and attend to the wants of inferior animals by the teaching of experience, so as to produce the greatest result. Do the same with your children, if you love this glorious Republic, and revere its institutions, the product of as pure, and good, and wise men as ever lived.

In the treatment of infants and very young children, one idea should be invariably impressed upon the mind—that is—their superior vitality, as compared with persons of mature age. We know that infants and children die in spite of skill and experience; but as a general rule, they resist disease in an extraordinary manner; and recover, where a strong man would succumb. This is owing to a natural law. The more infants and young persons are kept in the open air, and exercised in every possible way, the better for them; and as a general rule, the less medicine they take, the better for them also. Whilst the physical development is going on, there is more energy in all the functions of life than at any subsequent time. Many of us may envy them their power of digestion, and their almost unsatiated appetite. The great development of intellect generally commences, when the physical growth and perfection are consummated. About the time that the latter begin to decay, intellect, emancipated from a temporary predominating power, begins its career of all that is benign in society, progressive in arts and sciences, and glorious in its god-like sphere of genius. We allude to this at the close of our address, because it demonstrates to the Physician, the difference of treatment that is required for the mother and the child. Moral and intellectual power avail most with the first; while physical or physiological considerations belong peculiarly to the latter.

If we attempt to point out any line of demarcation between these two periods, we would assign it to the period of puberty. Although at that time the *physical* structure has not attained its full vigor, the progress of intellect may yet be very evident; we must not, however, expect to see it in its full power. There may be quick perception, retentive memory and much imagination or fancy—the *dawnings* of that *mature* judgment, which rarely develops itself until nature has accomplished the highest perfection of the physical frame.

We shall now conclude with a brief synopsis of the plan we have adopted. We have—

1. Endeavored to give a brief history of Midwifery.

2. We have alluded to some of the eminent men in various parts of the world who have lectured and written on the subject.

3. We have contended that the "sorrow" spoken of in the Bible as entailed upon the female sex, is *moral* suffering positively and physical suffering *conditionally.*

4. We have adverted to the powers of nature in carrying out her own laws, and maintained that it is better to trust to natural laws than to instruments or to nostrums.

5. We have attempted to show that the physical suffering is the result of civilization, luxury and sensuality—first causing the race to degenerate physically, morally and intellectually, and finally producing physical deformity.

We have spoken of the superior vitality of children up to the time of puberty—and of the best manner of treating and managing them, which is according to natural laws. And finally, we may lay it down as an aphorism, applicable to both young and old of both sexes, that every departure from natural laws involves more or less physical suffering.

However men may speculate as to the modus operandi of anæsthetic agents, one thing is certain, whether complete insensibility or stupor be produced by chloroform, or whether the same agent totally removes the sense of pain, consciousness being at the same time retained, it all amounts to the same thing—parturition is accomplished like any other natural process which is carried on by vital laws—and without the agency of volition—precisely as the heart beats; as the blood circu-

lates; as digestion, absorption and assimilation take place. For one purely natural operation in man, the highest on the scale of animal creation, is similar to all kindred operations in the inferior animals, even down to the Zoophites and Infusoria, and the most obscure connecting links between the lowest of the animal and vegetable entities.

II.—DISLOCATION OF THE OS HUMERI UPON THE DORSUM SCAPULÆ, REDUCED AFTER THE EXPIRATION OF FIVE WEEKS.

BY PAUL F. EVE, M. D.
Professor of Surgery in the Nashville University.

[We are indebted to Professor Eve for the *proof sheets* of the following instructive case in surgical practice, which goes to demonstrate what perseverance, joined to skill, may accomplish, under the most discouraging circumstances. We regard Prof E. as one among the first practical Surgeons on this side the Atlantic. *Ed.*]

Mrs. A. was thrown from a carriage while the horses were running away with it, and in the fall was struck by a wheel upon the left shoulder. This occurred just five weeks, lacking a day, before the dislocation, (the result of this accident) was reduced. Owing to the great tumefaction which immediately ensued, the peculiar nature of the injury was not detected. When this had subsided, her physicians recognized a dislocation, which was so unusual that she was advised to visit Nashville. Doctors Kelly and Porter examined the case with me on the 21st of November, and we confirmed the opinion already expressed by our professional brethren who had seen it, that there was a dislocation backwards of the humerus at the left shoulder-joint. This decision was further strengthened the next day by Doctors Jennings and D. W. Yandell concurring with us.

The symptoms present were a loss of contour in the articulation affected, motion backward and upward of the left arm; flatness of the shoulder, great projection of the coracoid process, prominence of the acromion, hollow under it; a distinct tumor on the dorsum scapulæ, behind and a little below the glenoid cavity; the spinous process of this bone was obscured; the tumor on its dorsum was much nearer its posterior edge than was the head of the humerus on the sound side to the corresponding point of that side; the longitudinal axis of the os humeri was directed behind the glenoid cavity; the left fore-arm was pronated.

The inferior extremity of the dislocated limb was longer than the one on the other side. There was no tumor in the axilla, and the elbow of the affected side could be made to approach the chest.

The patient did not now suffer much, but could only use the fore-arm to a limited extent, and the function of the arm was nearly lost.

The peculiar symptoms in the case were the altered direction of the long axis of the arm, the impossibility to carry the elbow backwards, the projection of the caracoid process, and the head of the os humeri on the dorsum scapulæ.

Kindly assisted by the gentlemen above mentioned, while one maintained counter-extension by means of a folded sheet in the axilla, (the patient being seated in a chair) two others extended the limb horizontally outwards and forwards, with directions to carry it suddenly backwards, the head of the os humeri was pressed towards the glenoid cavity, when the reduction was easily effected, without resorting to chloroform or the pullies. Upon the second trial, probably in three minutes, the bone slipped into its socket with distinct recognition to all present. In a week the patient returned home, a distance of about 30 miles.

That the backward dislocation at the shoulder-joint is a very rare one, a mere glance into the records of Surgery will satisfactorily prove. Its *bibliography* does not extend beyond the present century. Cases no doubt have occurred earlier than this period, but nearly all available in the profession have been derived from modern Surgeons.

In Professor Perrie's Principles and Practice of Surgery, 1852, on dislocations *backwards* at the shoulder-joint, he says that "of the head of the humerus on the dorsum of the scapula is so rare an accident, that Desault had never seen an instance of it; Baron Boyer met with it once in the living body; only two cases occurred at Guy's Hospital in thirty-eight years; in the same number of years Sir Astley Cooper met with two cases, and not more than four cases occurred in his practice during his whole professional career; and Mr. Lawrence, in his lectures, delivered at St. Bartholomew's Hospital in 1830, states that at that time he had never seen the humerus dislocated *backwards*. After alluding to three or four other cases, and two examples he had met with, he concludes the paragraph by stating, that there are on record a few others.

Mr. Bransby Cooper, in his lectures on the Principles and Practice of Surgery, published last year, writes that Boyer, speaking of this ac-

cident, says, "there is no well attested instance of dislocation of the humerus outwards and backwards." He states, however, that he himself had seen several cases; alluding, clearly, to some of his uncle's, Astley; and reminding an American of a similar connecting of E. Home to the celebrated John Hunter. But he, too, referring to his illustrious relative, remarks, that it was singular that two instances of so rare an accident should occur so closely together in the practice of one individual. In Sir Astley Cooper's great work on Dislocations, we find these very cases detailed. In the other Cooper's writings (Samuel) he states distinctly a few cases have been recorded. Ferguson has seen one instance; Liston,* Miller and Skey mention none.

During the visit of my colleague, Dr. Buchanan, last year, to Saint Bartholomew's Hospital, the first case of dislocation of the head of the humerus on the dorsum of the scapula, was brought into that institution. Mr. Stanley said it was the first of the kind he had ever seen, and he had been connected with it 30 years. Mr. Lawrence stated that he had met with but one other in 50 year's practice.

In our own country, Dr. Physick, if we recollect aright, met with two such dislocations. One was produced by the patient falling into a hatchway and striking the arm near the shoulder-joint upon its edge as the body descended into it. In this instance, the blow or force causing the luxation was applied directly opposite to that which resulted in a similar accident to the case here recorded. In my example, the wheel struck the scapula posteriorly, carrying it suddenly and forcibly forward, while the arm, fore-arm and hand, having no such movement communicated to them, by their dead weight, overcame the slight comparative resistance of the atmosphere, ruptured the scapulo-humeral articulation, and were thrown backwards.

In 1831, Dr. George Snider, of Jackson, Tennessee, communicated a case of backward dislocation at the shoulder-joint to Prof. Gibson of Philadelphia, in which not succeeding in effecting its reduction, as recommended by Sir Astley Cooper, he afterwards replaced it by the ordinary means applied to luxation of the os humeri in the axilla. Dr. S. has made the very sensible remark, that producing a secondary or consecutive displacement of the humerus downwards, which some authors recommend, cannot facilitate the reduction.

To be reduced from its second position, it must necessarily increase

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* See Elements.

the rupture in the ligaments or soft parts, or describe a curve to enter again the glenoid cavity.

The case now recorded, we believe, is the first of the kind occurring in or about Nashville.

Nashville, January, 1853.

III.—OBSERVATIONS ON THE USE OF COD LIVER OIL IN THE TREATMENT OF TUBERCULAR AND OTHER HETEROLOGOUS AFFECTIONS, ILLUSTRATED BY CASES.

BY R. SCRUGGS, M. D., OF LA.

Previously to the introduction of Cod Liver Oil into the Profession in this country, as a therapeutic agent, I was in the habit of relying chiefly upon the preparations of iodine, in the treatment of tubercular and other heterologous diseases, and generally with very satisfactory results. Since, however, this and other oils have been brought prominently before the Profession, I have constantly availed myself of them in my practice, and with a steadily increasing confidence in their value; notwithstanding which, I have by no means discarded from my list of valuable agents those with which I was accustomed formerly to grapple with these formidable maladies.

After carefully studying the books, and listening attentively in the schools to the discussions which there arose, as to the inflammatory or non-inflammatory origin of tubercle, I adopted the latter as the most plausible theory, upon which my treatment of these diseases has since been based. This opinion, however, has not prevented me from using the necessary antiphlogistic treatment, but it has prevented me from pushing it to the extent recommended by the advocates of the opposite theory; and although I would not like to assert positively that in no case of tubercular disease ought general blood-letting to be practised, yet I do assert, (according to the best of my judgment) that no such case has been presented to me in my practice. The opinion of the inflammatory origin of tubercle has led, frequently, to the adoption of a most active antiphlogistic treatment, which, in my opinion, is calculated rather to favor the deposition of tubercular matter, than to cause its removal. It has occurred to me to observe the course of a few cases thus treated, but the results were not such as to encourage me to adopt that plan of treatment myself.

Believing the tubercular matter to be a heterologous formation, de-

posited by the blood-vessels in particular tissues or organs, (the preference thus shown not being readily understood,) caused by a depraved condition of the constitution, either acquired or inherited, and that it was itself frequently, if not always, the cause of inflammation of the tissues in which it was deposited, and consequently the cause also of the febrile disturbances so often accompanying the local inflammation; I regarded the indications of treatment to be, first—to relieve the local inflammations and general vascular excitement; secondly—to cause absorption of the foreign matter; and lastly, to prevent a still further deposit of it if possible. To accomplish which, I depleted locally and enforced strictly the antiphlogistic regimen first; then applied counter-irritation over the affected parts, (usually an issue made with the Pate de Vienne) putting the patient upon a more generous diet as the inflammatory symptoms gave way, and at the same time used the preparations of iodine as an alterative calculated to favor the absorption of the foreign matter; and lastly, besides insisting upon such hygienic rules as were deemed best calculated to improve the general health, gave the syrup of the iodide of iron, as both alterative and tonic, with the view of causing the removal of whatever tubercular matter might still remain, and prevent a still further deposit of it. By this plan of treatment, I believe that I have succeeded in arresting the disease in several cases of incipient Phthisis. I recollect the case of a negro girl, about fourteen years of age, who was brought to me for examination in the year 1845, in which this plan of treatment seemed to answer admirably. She presented an ashy, cachetic appearance, had slight wandering pains in the chest, and a very harassing cough, which, having commenced about two months before, and growing gradually worse, in spite of expectorants, warm teas, purgatives, etc., which had been administered to her from time to time; her mistress became alarmed about her condition and brought her to me for treatment. Upon examination, there was fo und very decided dulness upon percussion at the apex of the right lung, with rude or bronchial respiration underneath the clavicle; the remainder of neither lung presenting any other abnormal sound whatever.

Had this condition existed only for a short time, and the abnormal sounds been heard in any other part of the lungs, I should have concluded that it was simply a case of circumscribed pneumonia or bronchitis; but considering its location at the top of the lung, in connection with the history of her family (which was scrofulous) and the very gradual manner in which the disease had progressed, I without much hesitation gave it as my opinion that it was a case of tubercular phthi-

sis, in its first stage. An opinion which, by the way, gave me but little credit with the family at the time, who, seeing the symptoms yield so readily under the treatment instituted, concluded that the Doctor had magnified the importance of the case, in order to get greater credit than he deserved for the cure. This very uncharitable opinion of me caused them to neglect the instructions given them upon my dismissing the case; a circumstance that they much regretted afterwards, when, according to my prediction, the symptoms returned with increased violence.

The patient was brought to me again, but for obvious reasons I declined treating the case. She was then sent to Dr. John R. Buck of Louisville, Kentucky, a gentleman somewhat distinguished as a lecturer, and remarkable for the accuracy with which he diagnosticated tubercular diseases. Dr. Buck, after a careful examination of the case, unhesitatingly pronounced it a case of tubercular phthisis.

The treatment which so speedily relieved the patient at first, was briefly as follows:

I applied a cup below the right clavicle, and abstracted five ounces of blood, which was nigh producing syncope. I then put her upon milk and bread diet for several days; then established an issue, the size of a ten cent piece, in the centre of the part cupped; put her upon the use of Sol. Iod. Potas. for a time, and afterwards gave her tea spoonful doses of the Syrup of Iodide of Iron three times a day, increasing the quantity and improving the quality of her diet, as the inflammatory symptoms gave way. Under this treatmeat she improved so rapidly, and was apparently well so soon, that it induced the belief, as before remarked, that but very little ailed her at first.

My experience in the use of Cod Liver and other Oils since, induces me to believe that this case might have been radically cured had the oil been commenced at the time I dismissed the patient, and continued a sufficient length of time; observing, of course, proper hygeinic rules, etc., during the treatment.

Another case to which I was called during the year 1845, and which interested me very much at the time, was a negress aged thirteen. She however was so much reduced by disease at the time I first saw her, that her master had altogether despaired of her recovery; but being a humane man, requested me to call and see her, and attend her as long as she should live, which he thought would be but a short time. Both lungs seemed to be diseased throughout their entire extent, but there was no evidence of the existence of a cavity. There was great

emaciation, an accelerated and feeble pulse, and a most distressing cough, with copious purulent expectoration. I found also a fluctuating tumor in the depression above the right clavicle, which, upon being opened, discharged a lump of cheesy looking matter, the size of a partridge egg, along with a serous fluid, in which it had floated. The mother of the girl immediately remarked, without being questioned, that it was precisely such looking stuff as Hester had frequently coughed up. The ulcer produced by this was a long time in healing, a circumstance that I did not much regret, as I thought it might answer the purpose of a seaton or issue. I will not attempt to give a detailed account of the treatment, but will only state, that with the various preparations of Iodine, Iron and Sarsaparilla, along with counter irritation with blisters and Tart. Emetic Ointment over the chest, and such adjuvant treatment as was deemed advisable from time to time, the girl gradually recovered her health. I saw her three years afterwards, when she was a fully developed woman. She then had the appearance of excellent health, but her mistress informed me that she was very delicate, could stand but little hardship, and that the cough and other unpleasant symptoms would invariably return upon her after the slightest exposure. I advised the use of Cod Liver Oil, which was given her, and two years after that, I learned that she was in fine health.

In the year 1847 I was requested to examine a negro man, about 38 years of age, who, it was stated, had been in a lingering condition for several months. His parents had both been taken in the same manner, and died, after several months of lingering disease; which had caused in the family the vulgar apprehension that these negroes had been poisoned or *conjured*—a very frequent and unfortunate superstitious error amongst the ignorant, in cases of negro consumption. By the physical signs, it was readily ascertained that a large cavity existed opposite the third rib on the left side, while the dulness on percussion and the absence of the healthy auscultatory sounds, rendered it probable that nearly the whole of the left lung was filled with tubercular matter. Add to this the general symptoms, and there could be no hesitation in pronouncing it a case of tubercular consumption in the last stage.

Being requested to prescribe for him, I introduced a seaton, to mark the situation of the cavity, and left some directions for his treatment, intended rather to smooth the path to death, than with any hope of permanently benefitting him. Of this I informed the master, telling him, at the same time, that although I could not promise to cure his

negro, I could, nevertheless, render him a very essential service, by disabusing the minds of his family of a very unfortunate error, and at the same time put him upon a plan of managing the children of the patient, (of which there were five, all presenting palpable evidences of the scrofulous diathesis) in a manner that might possibly ward off the predisposition to tubercular disease inherited from their father. Six weeks afterwards he died, and I made a post mortem examination in the presence of the family, a few neighbors, and several Physicians. A very large suppurating cavity was found just underneath the seaton, the lung being filled above and below the cavity with tubercular matter. Having, previously to making the examination, confidently stated my opinion of the condition of the lungs, and this opinion being so exactly verified by the autopsy, it gained for me the entire confidence of the family, and thus enabled me to dispel the gloom which had long depressed them, by putting to flight those vague and uncertain fears, known only to the ignorant and superstitious.

I will now proceed to give, somewhat in detail, the history and treatment of four cases, each differing from the others in some important particulars, yet all belonging to the family of heterologous diseases. They have been selected from amongst a considerable number of cases treated by the author with the Cod Liver and Phosphorated Almond Oils; with the hope that they might prove of some little use in determining the value of these and other oils, in the treatment of heterologous and other diseases.

CASE FIRST.

Mrs. C., a native of Virginia, æt. 45, mother of ten children, all living and apparently healthy, except slight tendency in two or three of them to enlargement of the tonsils. Mrs. C. is of medium stature, light hair, blue eyes, and extremely delicate appearance; temperament eminently nervous; has that peculiarity of constitution which has always rendered her obnoxious to those asthmatic symptoms produced in certain individuals by the taste or smell of Ipecacuanha; says that she has several times been reduced to the greatest extremity by taking Ipecac, administered to her by Physicians unacquainted with this idiosyncracy; never could take the smallest quantity in any combination, nor smell Ipecac, without at once suffering the most violent dyspnœa, which would sometimes pass off in two or three days, but would frequently last for more than a week.

About the 1st of August, 1851, she was taken with a pretty severe

cough, with a slight fever, which continuing with increasing intensity for ten days, I was sent for. I found her a good deal em aciated ; pulse small, and about one hundred beats to the minute ; tonsils enlarged and ulcerated; also inflammation of the larynx, and some difficulty in deglutition ; bowels obstinately constipated. She complains of pain through the right lung, extending to the right hypochondrium ; has violent fits of coughing, at the commencement of each paroxysm a quantity of very offensive matter is expectorated. The irritable cough continues for several hours after the expectoration of this accumulated matter, the sputa then being small in quantity, and composed of a glairy mucus mixed with pus, and occasionally mixed with blood. The intolerable fœtid breath, along with the mixed character of the expectorated matter, made it clear to my mind that there was gangr ene of a portion of the lung accompanying the tubercular deposit.

Physical Signs.—Left lung—Percussion and auscultatory sounds nearly natural. Right lung—Dulness upon percussion over the upper and lower parts, with preternatural resonance over the mammary region. Upon applying the ear over this region, there could be heard cavernous respiration, gurgling, various musical sounds, pectoriloquy, and indeed all the evidences of a considerable cavity. Pectoriloquy was most distinct at the lower part of the base of the right scapula.

Treatment.—Local depletion with cups,followed by warm cataplasms; low diet ; bowels to be moved with Comp. Cath. Pills, and afterwards to be kept soluable with mild aperient medicines. This was continued for several days, when blisters were applied, with directions to keep them running, and the patient put upon the preparations of Iodine ; the diet to be increased in strength and quantity as the appetite improved. She took first the Iod. of Potas., and afterwards the Syrup of Iod. Iron. This treatment was continued for four weeks without producing any very marked change in the condition of the patient. The cough during this time continued, although somewhat controlled by various expectorant mixtures, and large quantities of very offensive matter continued to be expectorated.

I then commenced with Cod Liver Oil in tea spoonful doses, three times a day, to be gradually increased if the stomach would tolerate it. The oil was administered in sweetened water acidulated with nitric acid ; a very excellent way of disguising the unpleasant taste of the oil, and believed also to be a valuable adjuvant in many cases. The patient could take the oil without its producing any nausea, and the dose was increased in three weeks to a table spoonful three times

a day. It seemed to fulfil several indications admirably: to allay cough, to quiet nervous irritability, to keep the bowels right, and to fatten the patient. She improved very rapidly, and left here for Texas about the 1st of December, 1851, appearing and feeling as well as she had for many years. There was evident shrinking of the diseased side of the chest, and the physical signs of disease still remained. I advised her to continue the treatment, both general and special, for a long time; not, however, to take medicine constantly, but to keep a watch upon herself, and use the means pointed out to her at irregular intervals until she felt perfectly secure.

I have frequently heard from her since she left here. She has enjoyed, generally, pretty good health, although she has had several attacks of the endemic fever common to her place of residence. In spite of this, and many depressing moral agencies, not the least of which may be mentioned, pecuniary difficulties in providing for her numerous family; she still keeps up her spirits and enjoys a comfortable share of good health. For which she is disposed to give the chief credit to the Cod Liver Oil.

CASE SECOND.

Mrs. S., æt. 22, mother of one child two years old; is rather tall, handsome figure, with dark hair and eyes; has a very amiable disposition, is quiet and lady-like in her manners. She had suffered for six months before I saw her with what was believed to be tubercular consumption, and had been confined to her bed nearly the whole of this time. Her condition and appearance when I first saw her, (February 12th, 1852) was well calculated to confirm the opinion of the existence of phthisis: pale, greatly emaciated, pulse feeble and slightly accelerated, and an almost incessant cough; the sputa abundant and apparently muco-purulent. But upon a careful examination of the chest, the physical signs did not absolutely confirm the opinion of the existence of tubercular deposit, at least in the parenchymatous structure of the lungs. If it had been deposited then at all, it must have been upon the free surface of the mucous membrane. The sounds elicited by percussion were somewhat dull, but the dullness was nearly uniform over both lungs. Auscultation showed that both lungs were permeable to the air throughout their entire extent, and the only abnormal sounds heard were the mucous and sub-crepitant ronchi. There were one or two tender spots along the course of the dorsal spine; the spleen considerably enlarged, and the bowels irregular; sometimes acting too freely, and at other times inclining to constipation. From what could

be learned of the history of her family, there could be no suspicion of hereditary vice of the constitution, or predisposition to tubercular disease.

Treatment.—The tender places along the spine were scarified and cupped; the anterior part of the chest was covered with a Burgundy Pitch Plaster, as also the enlarged spleen; the plasters being first sprinkled over with Tart. Emet. Directions were given to have the spine well rubbed twice a day with a linament which was to be composed of—

Aqua Ammonia Ol. Olivarum a a	ʒ j	
Tinc. Opii, gtts.	lx	
Chloroform Spts. Terebinth, a a	3 ij	M

The feet to be kept warm, and an occasional hot stimulating foot bath to be used; flannel to be worn next the skin, the diet to be nutritious but not stimulating, the bowels to be kept soluble with tea spoonful doses of cream of tartar, magnesia and sulphur, (equal parts by measure) and the cough allayed with the following mixture:

℞	Mucilage G. A.	ʒ vj	
	Acet. Morph. grs.	ij	
	Acid. Hydro. gtts.	xv	
(Medicinal)	Syrup Limon.	3 iv	M.

S. A table spoonful pro re nata.

This expectorant answered the purpose so well, that it was continued as long as the cough lasted.

Having been informed by her that her stomach would not tolerate the Cod Oil, I directed her to take tea spoonful doses of Phosphorated Almond Oil three times a day (1 grain phosphorus to ʒ xvj oil). The improvement under this treatment was rapid, and in the course of a few months her health appeared to be entirely restored.

It may be doubted whether this was a case of tubercular disease. I readily admit that the diagnosis was formed more from the general symptoms than the physical signs of tubercular deposit.

CASE THIRD.

C., a black negro, of small stature, æt. 35, mother of five children. Her youngest child is three years old, since the birth of which her general health has not been good, although she has usually been well

enough to do her ordinary work, as a field hand, on the plantation. She has never been right in her courses since her last accouchement, at which time she thinks she was seriously injured. Thought, until examined, that she had "only falling of the womb," with "whites," although she suffered often with sharp lancinating, alternated with dull, heavy pains in the small of the back, lower part of the belly and left side; the discharge being all along profuse, offensive to the smell, and often bloody. While working in the field, has frequently found it necessary to lay down upon her back, elevate the hips, and push the womb up, to prevent it from protruding externally. When this was done, she would apply a compress and T bandage to retain it in its position.

The parts, upon my first examination, made April 28th, 1851, presented a frightful amount of disease. By separating the labia with the fingers, without the use of the speculum, the diseased mass could be brought into view. It filled the vaginal canal, was deeply fissured and ulcerated, had a rather spongy and granulated feel externally, but felt more gristly upon passing the finger to the bottom of the ulcerated fissures. It appeared to spring from the whole circumference of the os uteri. The discharge was of a dark color, sero-purulent, and most intolerably fœtid. The examination caused it to bleed very freely. I invited several physicians to see the case, one of whom had had considerable experience in the treatment of uterine diseases; all agreed that it was the worst looking case that they had ever seen, and believed that it was cancer of the uterus. That was also my opinion, but I believed that it was originally cauliflower excrescence, and had become complicated with carcinomatous or encephaloid deposit.

Six leeches were applied, which filled quickly, and after they fell off the bites bled very freely, and continued to bleed for some time; so that a good deal of blood was lost in this way. Directions were left for the bowels to be kept open, and the vagina to be syringed out several times a day with simple warm water, and the patient to retain the recumbent posture.

On the 6th of May I cauterized the diseased parts very severely, with Potassa Fusa. This operation was performed three times, at intervals of one month, in the manner directed by Dr. J. Henry Bennet, protecting the surrounding parts with cotton, saturated with vinegar. Once, and sometimes twice, in the intervals of the severer cauterization, the parts were dressed with Argt. Nit. The pain produced by these applications was inconsiderable at first, in the parts to which they

were applied; but as the case improved, she complained very much of pain there, as well as in the region of the uterus, where it had been severely felt upon the first application of the caustic. Directions were always left to have a quantity of warm water thrown up the vagina several times a day, to cleanse the parts, as well as to foment them; and also to use astringent washes to moderate the discharge. In addition to the local treatment, she took alteratives and tonics, had blisters and frictions to the spine, warm fomentations over the bowels, etc. Indeed no adjuvant treatment was neglected that I thought could be of the slightest benefit to her. In this way the diseased mass was finally got rid of, so that about the middle of July, when I called to see her, she was up, very cheerful, and doing the work of a house servant, without any appearance of disease, or any inconvenience to herself whatever. Upon examining the parts with the speculum, it was found that the whole of the diseased mass had sloughed away, the womb mounted up to its natural position, and nothing remaining but a healthy looking ulcer, the size of half a dollar, on the cervix uteri. This was dressed with Argt. Nitr.

I did not see her again for six weeks, when I expected to find her nearly or quite well, but in this I was sadly disappointed. The overseer, thinking that she was well, put her to cooking for the negroes, the weather being extremely hot during the time; and to my great surprise and mortification, I found, upon examination, that the disease had been reproduced, and looked nearly as bad as it did at first. It looked black, had the same granular and spongy feel externally; was extensively ulcerated, and discharging a sero-sanguinolent matter mixed with pus, the stench being most intolerable.

I again cauterized extensively and deeply with the Potassa Fusa. This time the cautery produced a most alarming condition. I returned to see her the next day, and found that she had been suffering most intensely. There was an irregular spasmodic action of some of the muscles, while the jaws were nearly locked; a condition very nearly approaching to tetanus. She was unable to pass her urine; all that was passed dribbled away involuntarily. I introduced the catheter and drew off about a pint of urine, gave her a large dose of morphine, with directions to repeat it when necessary; moved the bowels with enemata, injected a quantity of flaxseed tea up the vagina, rubbed the spine with Chloroform liniment, and applied warm fomentations over the abdomen. With these means the pain, and other untoward symptoms, were finally relieved, and I then put her upon the use of Cod Liver Oil. From this time her improvement was rapid. Indeed in one month she

was up and again about, as though nothing had been the matter with her, and said she felt almost well. Upon examination, I found that the disease was again reduced to a small, healthy looking ulcer upon the cervix uteri, and but little discharge from it. I touched it lightly with the lunar caustic, gave her medicines with general directions, and she was removed to a plantation twenty-five miles distant from me. I saw nothing more of her for several months, and thus had not an opportunity of examining her. This I regretted very much, for I wished to ascertain certainly whether a perfect cure could be effected or not. Her master informed me last spring that she was quite well; but I learn that she has since died; but whether of the uterine or some other disease, I could not ascertain.

CASE FOURTH.

In this, the last case that I shall notice at present, the superior virtues of the oil were displayed more conspicuously than in any case I ever treated with it.

A little negro girl, about eight years of age, presenting not only the scrofulous diathesis, but having the disease fully developed at the time my attention was first called to him, in October, 1851. The absorbent glands about the neck, parotid, submaxillary and salivary glands were all very much swollen, and the tonsils enlarged and ulcerated. The conjunctiva were considerably inflamed, with the little pustular eruption upon them, said to be almost pathognomonic of strumous opthalmia; while such was the intolerance of light, that the little fellow would keep his eyes covered all day, never venturing to look around him until after sun-down.

Without any previous or adjuvant treatment, except to sponge his husky, dry skin with "pot liquor," (the water in which bacon has been boiled) which was done at the suggestion of the little negro's mother; a little aperient medicine, and bathing his eyes with a mucilage of the pith of sassafras; he was put upon the Cod Liver Oil, in tea spoonful doses three times a day; the oil being administered as usual in nitric acid water. The oil was also used by inunction. The improvement was so rapid, that he appeared to be entirely well before the first bottle of oil was exhausted. He was then neglected for a month or two, when the disease returning, he was again put upon the use of the oil, and again the disease rapidly disappeared. This time I advised a continuance of the oil for a considerable time after the boy appeared to

be well, which was done, and there has been no return of the disease up to the present time.

In this case there could be no mistake as to the medicine which had accomplished the cure, as might sometimes occur in chronic cases of long standing, where a great many different agents had been used.

Shreveport, La., 1853.

IV.—PUERPERAL CONVULSIONS.

BY S. B. MALONE, OF MISS.

Case No. I.

Mrs. ———, aged 28 or 30, figure tall and of large size, complexion fair, light hair, blue eyes, high intellectual attainments and social position; has been married about a year. June 5th, 1849, was called on to attend her in her first confinement, at 7 o'clock, P. M. Pains regular but light; labor progressing slowly.

At 11 o'clock stepped into her room, and on placing my fingers on her pulse, found it full and bounding; artery felt as large as one of her fingers; immediately corded her arm; but before I could open a vein she went into a violent convulsion, during which I opened a vein, with a large orifice, and took a large sized wash bowl nearly full of blood. Convulsions continued so violent, as to require the united strength of half a dozen persons to keep her in bed. Called in my lamented friend, Dr. Dabney Lipscomb, who remarked, on his arrival, that "if we did not get her relieved in a half hour, she must die." So soon as we could make the necessary arrangements, he administered Chloroform, a few inhalations of which perfectly controlled the convulsions, so that she would remain entirely passive in any position in which she was placed. The head of the child had just fairly entered the superior straight, first presentation; soft parts well relaxed; os uteri well dilated. I introduced the blades of a pair of forceps, and easily delivered the child, which was of ordinary size and well formed, but had been dead for several days.

In the course of an hour the effects of the anæsthetic passed off, and she roused up perfectly bright, clear and collected, but wholly unconscious of any thing which had occurred from the time the convulsions came on.

For some days she complained of muscular soreness. But her recovery was rapid and complete, though for some time she supposed her head to be injured by the effects of the chloroform. She has since had the misfortune to become a widow, and is now in fine health, and actively employed in intellectual employments.

Case No. II.

Betsey, mulatto, aged 16; first pregnancy; very fleshy and stout. June 24th, 1851, called in haste to see her at day-light. She had woke the family up by the noise made in a fit. When I arrived it had passed off, though she had not fully returned to a state of consciousness. As the room was close, had her taken into the fresh air, when she immediately fell over, in a second convulsion. Bled her freely, and took advantage of the first practicable opportunity to give a full dose of Oil and Turpentine. Convulsions continued, and occurred during the forenoon, whenever there was uterine contraction; which soon became distinct and regular, uncontrolled by free bleeding from the arm and from the temporal artery, or by the effects of Chloroform, Assafœtida, and other antispasmodics—all of which were freely resorted to. During the afternoon the pains were constant, and the whole system in a state of spasmodic rigidity, until the delivery of the child, which was of ordinary size and still-born. Soon after the delivery the convulsions passed off, but she lay during the night in a comatose state, breathing stertorously and perfectly insensible.

In the course of the next morning, the cathartic which had been so aptly given, acted fully and freely, showing that great constipation had existed. The unfavorable symptoms now gradually, but slowly, subsided; on the third day after, consciousness and intellect had returned, and she continued to improve until her health became fully established.

Case No. III.

Mrs. ———, daughter of one of our prominent citizens, aged 25 or 26, married about twelve months; before marriage, large frame and muscular, dark skin and hair; during pregnancy she led a very sedentary and inactive life; and increased rapidly and enormously in flesh, or rather fat; so much so, that her weight could not have fallen short of 250 pounds; previously it would have been about 160.

Late in the evening, on January 10th, 1852, she walked out to where her husband was, but a short distance, and fell against the root of a tree, and was discovered to be in a convulsion. She was now supposed "to be about eight months gone." Her father arrived in a short

time, and bled her freely, and the nearest practitioner was sent for. The convulsions continuing, alternately with coma, I was sent for, a distance of ten miles, and arrived about midnight. Found her whole frame in constant spasmodic action; labor progressing slowly; failed to place her under the influence of Chloroform, so as to control the convulsions; bleeding had been sufficiently used. It was apparent that immediate delivery was demanded; and as she lay extended at full lenth, and perfectly rigid, with the thighs closely pressed together, we found it utterly impracticable to get her in a suitable position to introduce the forceps; and as the evidences were clear that the child was dead, I opened the head and delivered the child. It was about the size of the seventh month. Soon after the spasmodic action subsided, but the coma and stertorous breathing continued, with total insensibility, in which situation I left her, with her Physician, and returned home early next morning. Learned that her symptoms continued pretty much the same, and that she gradually sank and died in the course of some twenty or thirty hours.

I have no doubt but that an examination, if it could have been had, would have shown rupture, and effusion on the brain. When the subject of this report was twelve or thirteen years old, her parents and friends became very anxious about a troublesome cough, and glandular swellings about the neck. I was applied to, and put her on the use of Tr. Iodine and Sassafras tea, which relieved both affections promptly and finally.

Case No. IV.

Caroline, bright mulatto, aged nineteen; full habit and fleshy; first pregnancy. November 21st, 1852, term of gestation considered complete; in fine health and spirits during the day and up to bed-time. 22d, woke up in the morning totally blind, so as to be unable to find her clothes, or get out of the room in which she had slept. During the morning, felt something like labor pains. I was called to see her at 11 o'clock, A. M. Blindness complete; pupils dilated; pulse full and sluggish; opened a vein in the left arm and took a pint and a half of blood, when the pulse sank. Gave her a nauseating potion and left her; returned at 3, P. M.; had vomited freely; blindness continues; pulse firm and full, 120; skin hot and dry; opened the temporal artery, with but little effect, as but a few ounces of blood was obtained; ordered a full dose of oil and turpentine.

At four o'clock was sent for in haste, with the information that she had a convulsion, which had passed off when I arrived. Symptoms all

aggravated; opened a large orifice in the right arm, and took rapidly from three pints to a half gallon of blood; pulse sank, attended with full relaxation and profuse perspiration, followed almost instantly by a violent convulsion, which lasted but a short time, leaving the system well relaxed. Made a second examination; soft parts yielding and very moist, but no dilatation of the os uteri. Lay quietly, apparently asleep, for an hour, when, becoming restless, and the pulse being soft and head cool, gave a full dose of morphia.

23d.—Has passed a quiet, comfortable night; used an enema at midnight, with but little effect. Blindness continues; repeated oil and turpentine. At noon cathartic acted finely; free from all pain; pulse and skin natural; occiput slightly retracted; blindness continues. 9 o'clock at night called in; regular labor pains had come on about 7; skin and pulse natural; soft parts relaxed; os uteri well dilated. At ten o'clock was delivered of a fine living male child. The blindness continues.

24th.—Passed a very comfortable night; pulse 88 and soft; skin natural; intellect clear; appetite good; unable to distinguish objects or persons by sight, but can point to the window; says her sight is not as good as it was before day. Directed counter irritants to the back of the neck and spine. At 5, P. M., able to distinguish figures, but not the features of persons. In all other respects doing well.

25th—Morning,—Sight nearly restored; both mother and child doing well; discharged.

It had been my intention to close the above cases with some practical deductions; but the cases themselves have extended so far, that I cannot trespass further on your attention.

It will be observed that the anæsthetic influence of Chloroform was tried in the three first cases. In the first its action was prompt and salutary. In the second and third, it was found impossible to place the patients under its influence. In all the cases free bleeding was resorted to; in the two first, I have no doubt with great benefit; and in the fourth, was, I have no doubt, the salvation of both mother and child. In but one case, the fourth, was the convulsions controlled before the delivery of the child, except perhaps the first, while under the influence of Chloroform. Free cathartics, when there was time to act, were decidedly beneficial.

Columbus, Miss., December, 1852.

V.—ANTHRAX OR CARBUNCLE.

BY G. M. WHARTON, M. D., OF NEW ORLEANS.

I have the notes of a severe case of Carbuncle, treated by me in Tuscumbia, Ala., some 16 months since.

The patient was past the meridian of life, and of a constitution much injured by luxurious and dissipated habits. The Anthrax was situated on the back, between the shoulders. It began as a little black, speck-like pustule, rising on a base of exceedingly disproportioned swelling, redness and hardness. The pain and itching also appeared greater than the cause would justify. The patient scratched off the apex of the pustule, when a small foramen was revealed, filled with a fluid more like a mixture of serum and pus, than either separately. Other little ulcers formed in the same manner, each disclosing similar orifices as soon as they were ruptured. These frequent openings imparted that resemblance to *honey-comb*, which those who have seen the disease have not failed to observe; and from all the cells alike the whitish, pathognomonic ichor issued slowly, or could be expelled in small quantities by pressure with the fingers. After a while the discharge was mingled with air, and assumed a very offensive odor. Meantime the hardness, so noticeable at the commencement, gave place to a softer, doughy or spongy feel in the centre, but continued about the confines of the Carbuncle, now embracing an area limited by either scapula on the right and left, and the cervical and lumbar vertebræ above and below; along these margins the adhesive inflammation forming the initiatory stage was too recent to have been broken up by subcutaneous infiltration or sphacelus of the cellular membrane. The redness of the tumor was exceedingly vivid, and the general symptoms of erysipelas were unmistakeable. The pain, acute from the beginning, directly grew intense, being of that fiery, pungent sort, as of a lighted coal upon the flesh, whence the malady derives its name.

The local disturbance was accompanied with symptoms of constitutional excitement, of a low grade, as is always the case where mortification is going on. Thus, a quickened, feeble pulse, diminution of strength, loss of appetite, headache and nausea, were readily discovered. The patient, on attempting to walk, was compelled to desist, from faintness; he labored under constant anxiety, and on several nights was even delirious.

The time that had elapsed between the appearance of the original pustule to the present moment, was about ten days, during which interval the patient had used Indian meal cataplasms, and other domestic, inefficacious topical dressings.

The indications to be fulfilled were obvious. When a part is mortifying from inflammation, Hunter says it is the inflammation that must be treated, not the mortification. Few cases of sphacelus occur in which tonics, anodynes, and nutritious diet are not prominent features in the general treatment. The bowels should also be kept relaxed, and the secretions promoted, while cleanliness and pure air should be equally insisted upon. Accordingly, I administered a dose of hydrarg. chlor. mit., followed by seidlitz powders. I gave tincture of bark and quinine, and when the exhaustion and pain were marked, I exhibited ammonia and opium. I put the patient on a wholesome regimen, and ordered his bed clothes to be changed often, and his room properly ventilated.

In regard to local means, had I been called early enough, a prompt application of kali purum might have destroyed the malignancy of the Carbuncle, by substituting healthy inflammation and suppuration; the diseased portions would have sloughed away, and a cure been effected. It was larger than a saucer when I first saw it, however, and therefore, as I conceived, it was too late to try the abortive, caustic mode. The scalpel was resorted to. I laid the tumefaction deeply open, throughout its extent, with a crucial incision. It bled freely, nor did I check the hœmorrhage. I then applied lint dipped in turpentine, and covered the whole with an emolient poultice. I renewed the former morning and evening, the latter four or five times a day, the discharges being considerable after the incisions. On the third day, I applied with a feather diluted aqua ammon. over the part, and then a poultice composed of crumbed wheat bread or flaxseed meal, stirred up with yeast, previously spreading a layer of Bals. Peru over the poultice. This last poultice I sometimes changed for one of carrots, preferring them grated raw and mixed with lint, to being boiled. These applications cleansed the sore, corrected its fœtor, and improved its secretions. I was especially pleased with the good effects of the yeast, which I have heard Prof. Mott eulogize six or seven years ago.

Under this treatment, the internal addressed to the typhoid condition, the local to the parts neighboring the gangrenous filamentous tissue, my patient rallied promptly. Occasionally, when sloughing portions showed themselves, and manifestly appeared for excision, I again used the knife or scissors. Gradually the erysipelas disappeared, pus formed, granulations sprouted up in the bottom of the wound, and the Carbuncle healed like an ordinary phlegmon.

The time elapsing between the discovery of the slight pustule to the perfect cure of the Anthrax, was exactly one month.

Carbuncles are usually spoken of under three heads : The common variety, of which I have endeavored to depict an instance ; the pestilential ; and the epizootic.

Of the first: Many ordinary boils, which have been picked, bruised, or otherwise maltreated, and so come to have two or more "heads," are confounded with Carbuncles. The true Carbuncle is not so frequently met with; and though it is stated to be generally not fatal, I have witnessed three deaths, and six cases, in a moderate practice of five and a half years, in Nashville, Tennessee, and North Alabama. In one of these fatal cases, the Carbuncle was located on the neck, and the patient died from effusion upon the brain and spinal marrow ; in others, the back was the seat of the inflammation. The back, the neck, the nates, more rarely the cheek, and very seldom the abdomen, are the chief seats of the disease; and the fatality is proportioned to the complication of the brain and spinal marrow. Sometimes the inflammation becomes so extensive, and the constitutional irritation so great, as to occasion prostration, exhaustion and death, without a complication of the organs mentioned.

Of the second: Pestilential Carbuncle prevails in Oriental countries, and consists of a rapid, acute inflammation, and enlargement of the secreting and lymphatic glands. It is the pathognomonic symptom of the plague, concerning which see Russell, and others.

Of the third: Epizootic Carbuncle, equinia, pharcy, or glanders, is a disease originating with animals, but communicable to man. I have seen horses and oxen affected with it. It is primarily an affection of the mucous membrane of the nose, antrum and fauces, with enormous sympathetic enlargements of the cervical glands, etc. I have never seen it except in horses and oxen. It is well described in books on farriery and the diseases of cattle.

VI.—VERATRUM VIRIDE, &c.

Abbeyville Court House, South Carolina,
November 18, 1852.

A. Hester, M. D.

Dear Sir—We present the following cases as they oucurred, without comment:

CASE FIRST.

Mr. G., about thirty-five years of age, robust frame, inclining to corpulency; health good, with a slight tendency to acidity of the stomach after taking a full meal. Had eaten nothing since morning till

eight o'clock at night. About one hour after he had supped, or rather dined and supped heartily on bacon and crout, followed with bread and milk, he was suddenly seized with a most intensely agonizing pain in the glans penis. It was so violent and unexpected, that it created quite an alarm in himself and family, as to what might be the result. But relief was obtained so soon as the stomach was emptied of its undigested contents.

He was repeatedly attacked in the same manner after fasting and eating freely of strong food; but relief always followed the unloading the stomach of its contents. Blue pill, columbo, sup. carb. soda and dieting corrected the condition and broke up the disease.

CASE SECOND.

Mr. R., about twenty-one years of age, of general good health. In the habit of turkey hunting; going out before day and fasting; eating heartily after unusual fasting and exercising. He was about two hours after attacked with a violent pain in the sphincter ani; so violent was the pain, that he had taken more than two hundred drops of laudanum in a very short space of time, before we visited him, and the relief was so slight, that he begged to have the vial containing the laudanum handed to him. Relieved by emptying the stomach of its contents. We would state that this turkey hunting takes place in the winter season, and those engaged in it sit and stand for hours on the cold and damp ground, watching for the game. He had repeated attacks after fasting, exercising and eating freely. On several occasions there was acidity of the stomach. Throwing off the contents of his stomach was followed with relief. Blue pill, ginger, precipt., carb. iron, wrought a perfect cure.

CASE THIRD.

Dr. G., about fifty years of age, of full habit, good health, and generous liver. Had been complaining for a time of slight pains and tenderness in the large tendons, near their insertion into the occiput; was troubled a few days after dining with slight giddiness and sensation of nausea and sickness at the stomach, which soon passed off without inconvenience. About the third day after his feeling these sensations of nausea, sickness, etc., he dined unusually hearty. About two hours after, he was suddenly seized with the most alarming and intense vertigo, followed with nausea and vomiting. The sensation on moving his head was indescribably unpleasant, and unaccompanied with any pain. The least jar or motion of the head was intolerable, and threatened immediate dissolution. There was not the least disturbance of the

intellectual faculties at any time. During the continuance of the paroxysm, there was an absence of all pain and tenderness in the tendons formerly affected. But this tenderness, pain and uneasiness were always felt and complained of after relief from the vertigo was obtained. Being of full and phlethoric habit, he was bled and cupped freely, dieted, blistered, and took blue pill. Recovering his health and vigor, and giving way to his desire to indulge his appetite, he was seized with a second attack in about eight months. Identically the same symptoms, but being less violent, under the same course of treatment he rapidly recovered his usual health and vigor.

About two months after his second attack, he indulged in a liberal quantity of meats at supper; before rising from the table, psychology was broached as a topic of discussion, as it was exciting the attention even of some of the literati in that vicinity. While the discussion was progressing, he felt a slight pain in the shoulder-joint, and jestingly proposed himself as a fit subject, or rather a willing subject, to test the merits of the mighty claims of this then *lion of the day*. The pain increasing, and feeling at the same time a pain in the region of the heart, notwithstanding their manipulations and belief in the powers of points, he at length observed to those *magic* workers, that his case was growing serious, and that something more efficient must be tried to arrest the then violent pain. In three hours from his first feeling of pain, he was no more—he was dead!

We were absent, and did not see him in this last and fatal attack. What would have been the effect of an emetic to relieve the loaded stomach?

In the first two cases, if the pain had fallen on the heart and not on the penis and sphincter ani, would it have proved fatal? Might not the throwing off the contents of the stomach, by an emetic, have afforded relief, even if the pain had fallen on that vital organ in the first two cases?

We will, in conclusion, add a few remarks on Veratrum Viride, as many of the numerous readers of your Journal have written to us on that subject since the notice of it in your September number. We will state for the information of those of the Profession who have not seen the original article, that every property and power we have claimed for it, have been fully confirmed and established by other and much abler pens than ours. Dr. Summer of South Carolina, has published a valuable article, fully sustaining its claims in Pneumonia. Dr. Robert of Alabama, has given the public an article still further setting forth its

undoubted powers in the same and a few other diseases. Dr. E. L. Antony of Burke county, Georgia, has given a clear and graphic account of its varied and wonderful powers in the successful treatment of numerous diseases, in their most alarming stages, such as Pneumonia, Puerperal Fever, etc. In addition, he has reported to us from a friend, two wonderful cures of Chorea. The number and variety of cases reported by him, if there was no other evidence at hand, would entitle it to all the encomiums we have lavished upon it in our efforts to call attention to one of the most valuable remedial agents known in the wide universe of nature, and should enlist at least sufficient curiosity to call for a trial of its virtues.

Frost of Charleston, Professor of Materia Medica, has conclusively established, or rather sustained and confirmed the claims set up for it in an able and chaste article, which he read before the Medical Society. We had hoped before this to have received a copy of said article. Dr. Wilburn of Alabama, has paid due honor to its powers in Typhoid Fever, and he has manifested a tact in managing that disease that we rarely see exhibited to the world. Dr. Branch of South Carolina, and Dr. Blackburn of Georgia, have stood forth as champions in defence of its unquestionably varied and astonishing powers, sustained by their combined experience, which may be found in the Charleston Journal. Dr. Cooper of Georgia, a man who stands deservedly high in his profession, and who, if he should live, will do honor to the noble profession, brought to the notice of the State Medical Society, its valuable properties, which can be seen in the transactions of that body. It would be a waste of time for us to press the nature of this agent further.

When we published our first article in June, 1850, in the Medical Journal published in Augusta, Georgia, giving the recipe for making the tincture, and the method of using it, we supposed that the druggists would have supplied the profession with an abundance of the article; but they, like many others, looked on it as a humbug, and the time for digging the root has been suffered to pass till next summer, as it is early cut down by the frost. On account of the numerous demands or requests made for the preparation, we have been at great pains to secure a pure article, and to those who may wish it, we will send a sufficiency of the root to treat over one hundred cases with the recipe, and a card of directions for using. Those who took the Journal have already the recipe and method of using, and the recipe will appear together with the manner of using, in an article sent in already for publication in December.

We here annex a number of diseases in which the above may be used with marked success : Typhoid fever, puerperal fever, scarlet fever, pneumonia typhoides, hooping cough and croup with febrile excitement, asthma, rheumatism, convulsions with high febrile excitement, inflamed breasts of lying-in women, mumps, where there has been metastasis to the testicle, inflammation of the brain, palpitation of the heart, etc.

The numerous calls from your State, Mr. Editor, and from Mississippi, Alabama, Texas and Arkansas, where your Journal widely circulates, induced us to send in the above. We have been written to, to put a stop to the sale of an impure and inert article. Why, my dear sir, we hav no more control over it than any other Physician in the United States. Any person who will take the Medical Journal published at Augusta, will find that we have not only given the recipe, etc., but that we have urged the profession to test the powers—yea further, we have staked our reputation as a medical man, and have urged the rial, and await the decision of that enlightened and honorable body. We had no idea of supplying the profession in the limited manner we are now doing, but from the numerous requests made, and from an unfortunate necessity that has been pressing on us for many years, which we would gladly be rid of. The druggists will surely by next season make arrangements to supply the demand, as we shall no longer keep it after disposing of the lot on hand.

Since visiting your city, I have intended to notice its great facilities for medical education, but will omit it till my next.

IV.—ON INFLAMMATION OF THE NOSTRILS.

BY J. HANCOCK DOUGLAS, M. D., OF NEW ORLEANS.

The simple affection known as "cold in the head," or more properly as inflammation of the nostrils, coryza, or gravedo, the beginning of so many ills to mankind, deserves more attention than is usually given to it. Coming upon us unawares, it draws in its train the whole catalogue of sorrows and maladies which spring from serious lesions of the lungs. Attacking the very commencement of that expansive tissue, the mucous membrane, it is easily carried, by continuity, throughout its whole extent, unless appropriate means are adopted to check its progress. Oftentimes, running out its course unattended, without serious result, it yet occasionally terminates in those dire forms of disease

which decimates childhood and old age, and arouses the symptoms of that terrible affection, the scourge of the civilized world.

There are two forms of inflammation of the nostrils; the acute form, known as "cold in the head;" and the chronic form, or catarrh in the head; both affecting the same tissues, and having the same general laws as to their seat, origin, progress and treatment.

The acute form I shall not describe, but merely give the treatment, which I have found as almost invariably checking it, if used in the first few hours of its invasion. The vapor of laudanum, of chloroform, of camphor, of various tisans, have been used with great benefit, in insufflation, to calm the local symptoms, but none have succeeded as well with me, in producing a permanent effect, as pure laudanum itself. The local difficulty seems to yield immediately; the sense of tenseness across the brows, the tearful eyes, the difficulty of breathing through one or both nostrils, the constant attention to the removal of mucus from the anterior nares, and in fine, all the general symptoms are relieved.

I direct the laudanum to be used as follows: Placing a small quantity, as a quarter to half a tea spoonful, in the palm of one hand, to snuff it up through the nostril corresponding to that side, closing the opposite nostril with the other hand, and vice versa, allowing the laudanum to reach the throat, but not swallowing it. It is also well to drive the fluid as far up towards the frontal sinuses as possible, by a sudden blowing through the nose. This may be repeated, if necessary, once or twice, at intervals of two or three hours, but I have seldom found it necessary to repeat it more than twice. The exhibition of a brisk cathartic after it, will tend to break up the severest coryzas.

This simple remedy is within the reach of every one, and if used early, will save much suffering from the disease, and prevent the dangerous sequelæ.

The chronic form of this disease may arise from the acute, by its continuance or frequent repetition, or from the irritation of any foreign body in those passages; such as polypi, impacted mucus, grain, persimmon seed, &c. Although not as dangerous, yet there is not a single disease of the mucous membrane so difficult to relieve, or which baffles so steadily the skill of the medical attendant, as that of chronic inflammation of the nostrils.

Resulting from the acute form, it may be characterized for a long time by a continued irritation of the nasal membrane, producing a flow of a thin, white, glairy mucus, which is only disagreeable from its quantity. This irritation, however, becoming aggravated, may result in a thick-

ened, hypertrophied condition of the mucous membrane, pouring off an excessive quantity of a thick, muco-purulent secretion, obstructing the passage of air, destroying the sense of smell, partially that of taste, and making the patient disagreeable to himself, if not to others, by his constant efforts to relieve the organs of the mucus, by the drawing of air through the nostrils. This condition continuing, the parts become more and more affected by the irritating action of the secretions, or by their accumulating in the sinuses, where they dry, and act as foreign bodies, causing a disintegration of the mucous surfaces, and eventually produce that offensive and dangerous form known as ozæna.

In the chronic form of inflammation of the nostrils, there is little or no fever, but it has distinctive characters, a certain physiognomy which is peculiar to it. The voice is changed, having a nasal tone, the alæ of the nose are drawn up, giving a scornful, cynical expression to the face; the eyes are often tearful; and the sclerotic coat of the inferior lid especially, is slightly congested, while the loose cellular tissue below the eyes seems puffed up; and even in some cases as if there was fluid infiltration there. The patient complains of a constant dull pain over the brows, corresponding to the region of the frontal sinuses, and in severe cases, the cheek bones are designated as aching points. The antrums are here affected, and the surface of the membrane involved being so extensive, the expectoration is so much the greater. The respiration is impeded or altogether suspended through the nasal passages, obliging the patient to breathe continually through his mouth, requiring it consequently to remain open, with the chin dropped, which, in young subjects, sometimes gives an elongation to the lower jaw, and produces no slight deformity. This is particularly observable in cases where enlarged tonsils block up the posterior nares, nor does this complication limit its interruption of healthy respiration here, but interferes with the proper expansion of chest, and produces deformity there, as observed by M. Robert, in his article on Deformity resulting from Enlarged Tonsils.

The profuse secretion passing over the throat irritates it, and extends the disease, while, more or less being carried into the stomach, deranges the digestive functions, establishes dyspepsia, and thus breaks down the hardiest constitution; or else from some hereditary predisposition, it directs its course towards the larynx, and arouses the same condition in the passages more directly concerned in the act of respiration.

The examination of the pharynx and posterior nares, will reveal that condition of parts which favors the excessive secretion of muco-puru-

lent matter. If the irritation has extended much into the pharynx, the arches of the palate, as well as the posterior wall of the pharynx, will be found thickened, the whole throat much tumefied and smooth, or the follicules will be seen enlarged, hypertrophied and irritated, presenting a granular appearance, as in granular lids, or the like form of disease of the neck of the womb, while the mucous membrane itself is deprived of its epithelium. Sometimes the parts are bathed with a thick, yellow secretion, which may be seen running down from the posterior nares, and forming, as is sometimes the case, a complete covering to the pharyngeal membrane, or it is again turned back in the centre, by the respiration, and forms a crescentic shape, the arms dipping down into the fossæ on each side of the larynx. The severe cases, from the extent of the disease, and the acrid, irritating character of the secretion, are accompanied with hypertrophy of the tonsils, a patulous condition of the uvula, and a relaxation of the whole of the soft palate. The anterior nares examined by means of a curved forceps, or the ordinary ear speculum, presents a similar tumefaction and hypertrophied condition of the pituitous membrane, sometimes resembling œdema.

Considering the disease as a local one, our plan of treatment is mostly local, and applied directly to the part affected. This is done in two ways. Either by sternutatories or injections—the latter of which we prefer. When, however, there are complications in the disturbance of other functions of the economy, measures should be adopted for the relief of those complications. The local treatment needs much perseverance, for the extensive surface often affected, and the general long standing character of the disease, requires long attention and thorough application of the local remedies.

The sternutatories have usually in their combination, upon which their efficacy depends, some form of the mercurials, and the nitrate of silver; while the injections are solutions of zinc, nitrate of silver, creosote, chloride of lime, weakened solutions of Lugol's Solution, and Fowler's Solution, &c. The Iodide of Potassium should be administered internally, and after an alterative has been produced by this remedy, the mineral acids and tonics, such as the Mur. Tinc. of Iron, Iodide of Iron, &c., should be given.

In the treatment of these cases, we have found no application so generally efficacious as a solution of the nitrate of silver, which at first should be made weak, and gradually increased in strength as the parts become accustomed to the application. Our method of introducing these injections is by the posterior nares, by means of a small syringe, with a long slender beak, bent within an half inch of the extremity, at a

right angle, which admits the passage of it behind the uvula, and by a forcible expulsion of the liquid in the syringe, it can be thrown high up into the nares, even into the frontal sinuses, and the patient by immediately bending his head forward, will allow the fluid to come out of the nostrils. He can also favor the entrance of it into the frontal sinus by suddenly blowing through the nostrils, in a sort of sniffling manner. It is important to have the fluid touch all parts of the affected membrane possible, so that if both sides of the nostrils are diseased, it will be necessary to take each one separately, unless the operator acquires the facility to manipulate the instrument, so as to do it at one and the same time. The injection by the posterior nares has seemed to me more certain than that by the nostrils, permitting the fluid to reach a greater surface of membrane, and not subjecting the patient to a sudden flow of the injected fluid into the throat and mouth, causing occasional strangulation, and always a disagreeable sensation. The application even with the mildest strength, is at first exceedingly unpleasant, and sometimes painful, as it would be with pure water, but each succeeding application becomes less so. The strength we have used has varied from five grains to twenty of the crystalized nitrate, to an ounce of water. Solutions of other preparations can be used in the same way, but when there exists any abrasion of the membrane, or slight ulceration, within sight, a stronger solution can be applied by means of a sponge-armed probang.

In those severe forms of ozæna, with ulceration and loss of some portion of the soft palate and walls of the pharynx, a solution varying from forty grains to a saturated solution, should be used, by the probang. This strong solution is far more curative than the caustic, which oftentimes only seems to increase the difficulty. The application may be made every day, or every second or third day, as occasion may require.

VIII.—BOTANICAL CONTRIBUTIONS.

New and hitherto unpublished Plants of the South West, mostly indigenous in Louisiana, and referred to by name in the "Catologus Floræ Ludovicianæ," published in the New Orleans Medical and Surgical Journal, Vol. VIII., pages 743 *to* 764, *May No.*, 1852; *and embraced in the MS. "Plants of Louisiana," illustrated by specimens and drawings, deposited in the Smithsonian Institution in* 1851.

BY J. L. RIDDELL, M. D.
Prof. Chemistry in Med. Dep. Univ. La.

Melothria punctata. *Leaves* small, deeply lobed, papillose punctate' hispid; *pedicels* much shorter than the leaves. June. Dry Prairies of Opelousas, Carpenter. Found also in Texas in 1839. Plants of La. No. 546. Natural order, Cucurbitaceæ.

Cucumis odoratissimus, Carpenter, MSS. Whole plant strigosely pubescent; *leaves* cordate, slightly 5-lobed, lobes rounded, serrulate; *fruit* from one and a half to three inches in diameter, subspherical, pubescent before maturity and longitudinally marked with alternate bands of green and whitish; which when mature become pale green and yellow; fragrant. Flowers from May to September. East Feliciana, La. Carpenter. Plants of La. No. 554. Natural order Cucurbitaceæ.

Campanula Ludoviciana. Lower *leaves* orbicular, spatulate, petioled; upper ones ovate, half clasping, crenate, undulated on the sides; *stem* branching; *flowers* single, blue. Plant eight to twelve inches high. Flowers in Ap. May. Fields about New Orleans. Resembles C. amplexicaulis. Plants of La. No. 1018. Natural order Campanulaceæ.

Lysimachia procumbens. *Leaves* opposite, petioled, without dots, entire, acute; lower ones ovate, rounded at the base, on petioles one half their length; upper ones lance-ovate, on shorter narrowly margined petioles; *flowers* yellow, very small, about one third to one half the size of those of the L. lanceolata, axillary, on opposite peduncles rather longer than the leaves; segments of the corolla rounded, crenate, mucronate, about as long as the calyx; *stem* with attenuated branches one to four feet long, weak, procumbent, resting on small bushes, quadrangular with the faces grooved and the angles flattened. Full sized leaves from one to one and a half inches long; flowers from May to August. Damp pine woods Madisonville, Swamps, lower La. Plants La. No. 1071. Natural order Primulaceæ.

Lysimachia Carpenterii. *Leaves* opposite, entire, without dots, lin-

ear-lanceolate and oblanceolate, tapering and acute at both ends, on short ciliated petioles ; *flowers* yellow, as large as those of L. lanceolata, generally in fours at the summit, on peduncles a fourth shorter than the leaves ; sepals lanceolate, acuminate ; corolla rather longer than the calyx ; *stem* simple, six to eight inches high, slightly sulcate. Leaves near two inches long. Flowers April to June. Open pine woods, East Feliciana, Carpenter. Plants of La. No. 1072. Natural order Primulaceæ.

Plantago Ludoviciana. *Leaves* lance-linear and linear, acutish, attenuated into petioles, usually with several irregular, prominent, lateral teeth, pubescent towards the base ; *scapes* numerous, pubescent, sulcate, nearly twice as long as the leaves ; *spikes* long and loose, the flowers usually separate; *bracts* ovate, acute, with membraneous margin, longer than the membraneous calyx, shorter than the matured capsule ; three to six inches high. Annual. New Orleans. Differs from P. pusilla, Nutt., to which it is closely allied, in its greater size, toothed leaves, and more elongated, sparsely flowered spike. Plants of La. No. 1084. Natural order Plantaginaceæ.

Dicliptera Halei. *Leaves* short petioled, slightly pubescent ; margin repand, dentate or entire ; lower leaves obovate, spatulate, obtuse ; middle ones oval and lance-oval, near three inches long by more than one broad, acuminate, attenuate at base ; upper ones ovate and lance-ovate ; *flowers* six to eight in a compact, mostly terminal spike or spikes, (sometimes solitary in the axils of the leaves) mostly sessile in the axils of small *bractcate leaves*, the lowest pair of which are ovate, acute, subpetioled ; the others obovate, obtuse, mucronate, sessile ; all of them ciliate ; *bracts* two at the base of each calyx, linear, acute, ciliate, nearly equal, almost as long as the tube of the corolla ; *calyx* 5 parted ; divisions linear ; *corolla* pale red almost white ; limb resupinate ; upper lip ovate, entire or slightly emarginate ; lower lip 3-lobed ; *pod* ovate, compressed, pointed with the persistent style, loculicidal, containing four irregularly lenticular seeds, each one eighth of an inch in diameter. Stem simple or branched, about six to twelve inches high. Flowers from June to September. Shady lands, Rapides, Hale. Thompson's Creek, Feliciana, Carpenter. I have specimens from Alabama, collected by S. B. Buckley. Plants of La. Natural order Acanthaceæ.

Physalis Carpenterii. *Leaves* long petiolated, obliquely or unevenly cordate, ovate, acuminate ; margin repand, undulate ; *flowers* small, on pedicels near half an inch long, in axillary fascicles of three to six ;

corolla pale yellow, with lurid crimson spots at the bottom. Herbaceous, branching, three to four feet high; larger leaves two to three inches, on petioles two inches long. Shady low lands, and thick woods, flowering in June. East Feliciana, Carpenter. Plants of La. No. 1312. Natural order Solanaceæ.

Polygonum Opelousanum. *Leaves* sessile upon the sheathing stipules, narrowly lance-linear (larger ones two to three inches long) subacute, entire; margin subrevolute, margin and midrib armed with appressed setæ; *stipules* hirsute, ciliate with ciliæ as long as the tube of the stipule; *spikes* slender, six to eight on each branch in a terminal cluster; *flowers* not much crowded, embraced below in an outer ciliate bract resembling the stipules, and an inner membranaceous bracteose structure with four gland bearing filaments; *corolla* 0; *calyx* deeply 5-parted; divisions ovate, white with a tinge of red; *nut* triangular, shining black; near half a line in diameter; *stamens* eight; *styles* three. Stem ascending, ramose, two feet high. Low prairies of Opelousas, flowering in June and July. Specimens collected by Carpenter. Plants of La. No. 1431. Natural order Polygonaceæ.

Polygonum geniculatum. *Leaves* linear-lanceolate, often falcate, (larger ones five inches long by two thirds of an inch broad) entire, acute, partly amplexicaul, sub-glabrous; edge armed with numerous very short stiff setæ; midrib with minute recurved prickles below; *corolla* 0; *calyx* 5-parted, persistent, red at the tip, embracing the seed; *stamens* mostly five?; *styles* three; *nut* broad ovoid, obtusely triangular, wine-colored and shining when ripe, about a line in diameter; *flowers* on short pedicels, (the latter embraced in ragged membraneous, subhirsute bracts) three to six together in a short lax spike,—and several of these spikes arranged on long dichotomously branched peduncles to form an axillary cyme; *stem* sub-scandent, two to three feet, geniculate or zigzag, branching above, deeply sulcate, armed with minute recurved prickles, which are most numerous at the angles or base of the leaves, glandularly setose above; *stipules* membranaceous, setose at the end. Marshy prairies on the Tchefuncte river, opposite Madisonville, and about lake Pontchartrain, flowering from July to September. Plants of La. No. 1432. Natural order Polygonaceæ.

Eriogonum setaceum. *Leaves* crowded near base or root, densely tomentose on both sides, white becoming cinereous, oval, entire, obtuse; (medium size four lines by two) upper ones on petioles of their own length; lower ones sub-spatulate on still longer petioles; *stems* densely tomentose, cæspitose, many arising from the same large, dark, woody

perennial root, or sometimes from a sub-repent main stem, clothed with leaves two or three inches high, mostly simple; *general peduncle* or *scape* naked, glabrous, pale purple, undivided for two or three inches, then dichtomously forked to produce a loose corymb of twelve to twenty involucres; each joint is enveloped by a toothed involucre, and sends out a flower bearing pedicel besides the two branches; *pedicels* from a quarter to an inch long, setaceous, crowned by a cyathiform 5-toothed green involucre bearing ten to twenty flowers; *sepals* white, six; the three outer broad, nearly circular, retuse, sub-plaited; the inner ones narrow lance-oblong; *styles* three; *stamems* variable, seven to nine observed; *germ* ovoid triangular. On dry granular quartz rocks, Kaolin creek, between the Piedernalis and San Saba rivers, Texas, (November, 1839). Grows six to twelve inches high. Natural order Polygonaceæ.

Acalypha Virginica, Linn. Natural order Euphorbiaceæ. This plant varies so much with us, that it might perhaps appropriately be subdivided into several species. We have the following and intermediate forms. I set them down as varieties, although considering the convenience of the dual method of naming, I would prefer to consider them as species.

Var. rhombifolia. (A. Caroliniana, Michaux.) *Leaves* rhomb-ovate, wedge-form at base, obtusely crenate, serrate, nearly globrous, subacute; radical leaves shorter than the petioles; (two and a half by one and a quarter inches) *bracts* large, gashed more than half way to the base. Flowers June to September. Woods, etc.

Var. intermedia. *Leaves* ovate, obtusish at base and apex, slightly crenate-serrate; medial leaves rather shorter than the petioles, (one and a half by three quarter inches) sparingly pilose; *bracts* of medium size, gashed rather less than half way down. Jul. Sept. Flat, open woods.

Var. ovalifolia. *Leaves* oval and oblong oval, obtuse, slightly crenate, almost glabrous; medial leaves five times as long as the petioles; *bracts* small, gashed, less than quarter the way to the base. August. Fields. New Orleans.

Var. gracilens, (embraced in A. gracilens. A. Gray Bot. Northern States, p. 408; probably very near the original A. Virginica, Linn.) *Leaves* lanceolate and oblong lanceolate, obtusish, acute at base; slightly crenate, sub-pilose; medial leaves about six times as long as the petioles; (one and a half by one third inches); *bracts* of medium

size, gashed about quarter the way down. Jul. Sept. Sandy pine woods, La.

Var. ramosa. Very branching; *leaves* lance-linear and oblong-linear; apex acutish; base obtusish, pilose; medial leaves eight times as long as the petioles; one by one sixth inches) *bracts* large, gashed nearly one third the way down. Jul. September. Dry pine woods, Louisiana.

Var. Texana. Very hardy and branching; *leaves* oblong-linear, obtusish, mostly entire, mealy tomentose; medial leaves nearly ten times as long as the petioles; (one and a quarter inches) *stem* almost frutescent, eight to twelve inches high; *bracts* small, crenate-serrate; divisions extending about one eighth or one tenth the way to the base. August and September. Dry sandy prairies, Texas and Western Louisiana.

Remark. The leaves of the foregoing varieties are all entire near the base; the indentations, if any, occurring in the anterior part.

Acalypha ovata. *Leaves* on short petioles, (one twelfth to one eighth of an inch long) ovate, acutish, rounded obtuse at base, serrate, (medium length half an inch, larger ones one and a quarter inch) sub-pubescent; *stem* terete, not furrowed, sub-pubescent, somewhat branched and fruticose; *styles* three, red. cut-fringed, persistent; *germ* consisting of three globular carpels; pilose above; *bracts* small, faintly embracing the germ, convex without, pilose, serrately gashed about one-third the way down; *root* black and woody, perennial. Grows six to ten inches high, on the high prairies of the Camanche country, Texas. (November, 1839.)

This species is a true congener with A. Caroliniana, Walter (Not Michaux). Natural order Euphorbiaceæ.

Quercus Carpenterii. *Leaves* short petioled, (near quarter of an inch) cinerous tomentose beneath, smooth aud shining above; outline oblong, (larger ones one and a half by four inches) with three to five shallow, irregular sinuses on each side, having the small lobes or rather large teeth acute and awned; *acorn* nearly sessile; *nut* globose, near half an inch in diameter, half embraced in the hemispherical capsule. This oak was queried in the herbarium of the late W. M. Carpenter, as a variety of Quercus falcata. A large tree, growing around the prairies of Feliciana, La. Carp. Plants of La. No. 1552. Natural order Cupuliferæ.

Quercus Peckiana. (In memory of the late Dr. Clarendon Peck of Louisiana, a zealous student in botany.) *Leaves* on short petioles (one sixth of an inch) cinereous downy beneath, glabrous shining above, at the base sometimes obtuse, most frequently acute, diverse in form and outline, viz: 1st, obovate or oblong or oblanceolate, entire with a terminal awn, with margin plane or wavy; 2d, with one to three rounded or acute small lobes or projections from one or both margins. Average size of leaves one and a half by three and a half inches. Prairies of Middle Louisiana. Fruit not seen. Plants of La. No. 1553.

Quercus Andromeda. *Leaves* sub-sessile, acute, sub-mucronate, oblanceolate, tapering at base, entire, thick coriaceous, smooth shining above, densely tomentose cinerous below, average length under two inches; midrib depressed above, very prominent below; margin revolute; *acorn* sessile, very small? (not mature in my specimens) *branchlets* glandular punctate. Amongst Carpenter's latest Louisiana collections. Plants of La. No. 1554.

Quercus rhombifolia. *Leaves* short petioled (one eighth to half inch) acute at the base, rusty tomentose beneath, smooth above; prevailing outline rhomboid, though variable, viz: 1st, obovate, entire, acute, mucronate; 2d, broad rhomboid, mucronate, with the lateral corners rounded; 3d, with a terminal, and on each side a lateral lobe, all awned or mucronate, margin toward the base repand; *acorn* on a short pedicel, (not mature in my specimens, said by Dr. Josiah Hale to be very similar to the acorn of Quercus tinctoria, Bartram). Tall oak tree, two feet in diameter, Alexandria, La. Dr. Hale, by whom it was first detected. Plants of La. No. 1555.

Quercus bumeliæfolia. *Leaves* very short petioled, (eighth of an inch) acute at base; apex mostly rounded obtusish, somewhat coriaceous, with tufts of cinereous pubescence often beneath in the axils of the venation, obovate and oblanceolate, seldom lance-ovate; margin usually wavy repand; *acorn* half an inch in diameter; *nut* ovoid, one third embraced in the capsule. Leaves resembling those of Bumelia tenax. Small tree, thirty to forty feet high. Alluvial lands, Red river country, Hale. Plants of La. No. 1556.

Urtica Aureliana. *Leaves* opposite, rather long petioled; lowest ones orbicular, subreniform, crenate, with regular rounded projections; uppermost ones ovate and lanceolate, coarsely crenate dentate; *flowers* green or purple and green, in globular clusters; two clusters in the axil of each leaf, on peduncles near one sixth as long as the petiole; monœceous; *staminate flowers* intermingled with pistillate ones; *sta-*

mens uncoiling and bursting elastically; *perianth* four rounded lobes, half as long as the stamens; *pistillate* flowers with two large obovate sepals, alternating with two very small ones; *nut* compressed, ovate, shining. Roots annual, whole plant sparingly hispid and armed with most virulent white stings arising from black glands. Stem branching near the ground, one to two feet high. Fence corners, woods, etc., about New Orleans, and elsewhere, La. Flowers from February to April.

The Urtica purpurascens, Nutt., and the U. verna, Raf., are both closely allied species, all bearing a near affinity to the stinging nettle, U. urens, Linn. Plants of La. No. 1582. Natural order Urticaceæ.

Potamogeton fulvus. *Leaves* all submersed, thin membranaceous, broad deltoid cordate, (one third of an inch long and rather less in width) amplexicaul, embracing when single more than three fourths of the stem, half clasping at the branches where they are opposite, obtusish, 7-nerved; margin repand, crisped and wavy; axils setose; *peduncles* long (an inch or so) club shaped; *spikes* four to eight flowered ovaloid; *nutlet* obliquely obovoid, rounded, sub-compressed, minutely subverrucose, about one sixteenth of an inch in diameter, with an excentrically placed short obtuse beak; *stem* slender, (the thirtieth of an inch in thickness) branching one to three feet long. Whole plant of a more or less dark yellowish hue, which in the leaves becomes olive green. Shallow margin of Lake Pontchartrain and elsewhere, La. Flowers from June to September. Allied to P. perfoliatus, Linn., though quite distinct. Plants of La. No. 1617. Natural order Naidaceæ.

Sagittaria gigantea. *Leaves* oblong-lanceolate, acute, about 9-nerved; blade sometimes two feet long by six or eight inches wide, standing, with the branching scape three to six feet high; *flowers* large, white, resembling those of S. rigida, Pursh. Swamps, New Orleans, and inundated margin of Lake Pontchartrain. Flowers from June to Sept. Plants of La. No. 1625. Natural order Alismaceæ.

Sagittaria paradoxa, Carpenter MS. with specimens in his herbarium, which is now incorporated with the herbarium of the author. *Leaves* all radical, numerous; the outer ones membranaceous, striate, grass-like, six to eight inches long, eight lines wide, of equal width throughout the whole length to within about an inch of the point, then tapering to form an acute, often a linear acumination, sessile, clasping at base; inner leaves linear, with long filiform terminations, (eighteen to twenty-four

inches long) sheathing at base ; *scape* naked, fourteen to sixteen inches high ; *flowers* small, generally in 3-flowered whorls, on pedicels six to ten lines long, ten to fifteen flowers forming a simple raceme ; *bracts* broad ovate, obtuse. Muddy ponds, Buhler's Plain, West Baton Rouge. Flowers from April to June. Plants of La. No. 1626. Natural order Alismaceæ.

Adiantum australe. Cæspitose ; *frond* decompound and supra-decompound, outline lanceolate ; *pinnules* short petioled, acute and wedge-form at base, of a lively green color, terminating in rounded serrulate sori-bearing lobes. The stalk (including the whole frond) is from six to thirty inches in length, shining, of a wine-color, nearly black when old ; usually more or less pendulous from the side of limestone cliffs, adjacent to springs or streams of water. Western Texas, (Sept. 1839) Alabama, Florida.

Compared with European specimens of A. Capillus-Veneris, which it closely resembles, it seems much larger, and the pinnules more lobed. Plants of La. No. 1775. Natural order Filices.

Pteris zygophylla. *Frond* glabrous, supra-decompound, outline triangular lanceolate ; *subdivisions* of the stipe alternate, petiolate, divaricate ; *pinnules* mostly in pairs, (zygophyllous) trapeziform, sub-ovate, obliquely cordate at base ; apex truncate, (about half inch long by one third or one fourth inch broad) *veins* immersed in the substance of the pinnule ; *veinlets* once or twice forked near the lateral margin, where they bear the *sporangia*, which form a marginal spore extending the whole length of each pinnule on each side, more or less covered by the reflected membranaceous margin of the pinnule; *stipe* yellowish brown, smooth above, chaffy near the roots, sub-scandent ; about two feet high. Grows among granite rocks in the mountains of the Camanche country, Texas. (Oct. 1839.) Natural order Filices.

Pteris Buckleyi. *Frond* nearly glabrous, bipinnate ; outline lanceolate ; (two to four inches long by less than one inch in width) *pinnæ* alternate, subsessile, wedge-ovate in outline, partly pinnate, partly pinnatifid ; *pinnules* or lobes obtuse, sub-ovate, or oblong, or (by the approximation of the opposite sori) linear-oblong, sessile, decurrent ; *veins* alternately and ramosely forked ; proper midrib none ; *sporangia* arranged to form narrow continuous marginal sori, covered by the membranaceous reflexed margin of the pinnule; *stipe* black, shining, wire-like, one fourth of a line in thickness, glabrous, sub-pubescent where it is continued through the frond, arising from a tuft of dense ferruginous wool at the base, longer than the frond, apparently cæspitose, four to

eight inches. Limestone cliffs on the Tennessee river, at Florence, Alabama, where it was found by S. B. Buckley in 1848. Natural order Filices.

Dryopteris Aureliana. *Frond* lance ovate in outline, tapering from below the middle towards the base, sub-pilose, pinnate; two or three lower pairs of pinnules reflexed; *pinnules* nearly opposite, sessile, oblong, linear, acute, deeply pinnatifid; *lobes* oblong, rounded, minutely repand, bearing sori always distinct near the margin; *venation* simply pinnate, veinlets simple and passing centrally beneath the sori; *stipe* chaffy below. One to two feet high. Damp woods, New Orleans, and in other parts of Louisiana. June to August. Habitually more robust and of a deeper green than D. Noveboracensis, which in other respects it very closely resembles. Natural order Filices.

Dryopteris Rafinesquiana. *Frond* broad deltoid lanceolate, not tapering below, rather attenuated towards the summit, pinnate; *pinnules* vaguely alternate, sessile, lance-linear, ensiform, pinnatifid; divisions, extending about two thirds of the way to the midrib; *lobes* wedge-ovate, obtusish; *sori* round in rows on each side of the midrib of the lobe equidistant from the midrib and the margin, seldom crowded, never confluent; *indusium* peltate, orbicular or kidney-shaped; *venation* as in D. Aureliana. Frond often more than one foot broad. Two to four feet high. In fruit from April to November. About New Orleans and elsewhere in Louisiana.

Closely related to D. Noveboracensis, but differs from it in its chaffy stipe, different outline, and much greater size. Dedicated to the late C. S. Rafinesque, who, after years of excentric devotion to American botany, died 1840 in Philadelphia. Plants of La. No. 1784. Natural order Filices.

Lastræa petiolata. *Frond* long lanceolate in outline, broadest about midway and tapering both ways, partly bipinnate; *pinnules* petiolate; lower ones sub-cordate, triangular ovate, pinnatifid; middle ones pinnate, lance-linear in outline; upper ones pinnatifid, linear, falcate; *lobes* oblong and linear oblong, usually curved upwards, rounded at the end, serrulate; fertiles one often sub-pinnatifid; *veins* pinnately forked; *sori* circular and twice as large as in Lastræa cristata, placed midway between the midrib and margin, becoming sometimes nearly confluent; *indusium* peltate, nearly orbicular; *stipe* chaffy. Marshes Louisiana and Florida. Three to five feet high. August. Closely related to L. cristata. Plants of La. No. 1785. Natural order Filices.

Lycopodium corallinum. *Leaves* lance-ovate, subulate, carinate, less

than one line long, in eight indistinct rows, appressed and imbricate upon the stem; *spikes* numerous, terminal, arising continuously from the branches, 4-sided, from a quarter to half inch long and near the tenth of an inch thick, sub-erect; *bracts* ovate, cuspidate, sub-membranaceous, larger and longer than the ordinary leaves; *sporangia* hidden, axillary, yellow, spheroidal bean-shaped, sub-compressed, near one sixth of a line in diameter. Cæspitose, not creeping, stems branching and about half a line thick. Perennial and sempervirent on dry granular quartz rocks at Kaolin creek, near the San Saba, Texas. (November, 1839.) Also near Kisatchy Springs, Western Louisiana, where it has been found by Dr. Hale. Plants of La. No. 1797. Natural order Lycopodiaceæ.

IX.—CASE OF STRANGULATED FEMORAL HERNIA.

BY G. T. BROWNING, M. D., NEW ORLEANS.

On the morning of the 14th of December last I was requested to visit Mrs. T., a poor Irish woman. Upon reaching her abode, I found that she had been suffering severe pain for thirty-six hours, caused by a tumor in the right groin, which upon examination, as well as from the woman's own history, I was induced to believe was a femoral hernia. The contents of the stomach were very frequently rejected. The taxis was gently employed for some time without gaining any advantage; not having a warm bath at command, fomentations were ordered to the abdomen, and a mixture containing Morp. Sulph. grs. iij, Sod. Bicarb. ʒ i, Muc. G. Acacia ℥ iv, of which one spoonful was to be taken every hour until sleep was caused, or the vomiting restrained. Lumps of ice to allay thirst.

At my next visit the tumor was the same, the pain and vomiting somewhat less. The taxis again failed. Ordered ice over the tumor, and the lower intestines to be emptied by enema. On the night of the 15th the symptoms remained about the same, with the addition of slight peritonitis. An infusion of Tobacco was now directed to be thrown up the rectum, but for lack of an attendant the instruction had not been carried out.

On the morning of the 16th, the woman was willing to act upon the advice which I had previously given her, and be conveyed to the Charity Hospital, that the operation might be performed, or the reduction of the Hernia, under other hands, be accomplished. This, however,

was found impossible, after having been placed in an anæsthetic state by chloroform, by any degree of force proper to be used on such occasions.

Prof. Wedderburn, into whose ward the patient had been sent, was anxious to operate immediately, and whilst still under the influence of chloroform, it was decided to return the strangulated intestine by the employment of the knife ; accordingly the Professor made an incision over the body of the tumor, about an inch and a half in length, carefully dividing the integument and superficial tissues, until the sac was reached, which presented a very dark appearance. It was now found that the opening was too small to allow the strangulated sac and intestine to repass into the cavity of the abdomen ; it was therefore necessary for the operator to pass his finger with a blunt pointed hernia knife down to the ligament, and after making a slight incision, about the eighth of an inch, the sac quickly passed in. The operation, it will be perceived, was performed without opening the sac, a mode which, upon good authority, is maintained to be superior to that which has been generally employed.

The woman was now ordered 20 grains of quinine and 3 of opium, and to be removed to bed. For several days the case progressed favorably, and on the tenth day after the operation it was the intention of Mrs. T. to have left the Hospital ; three days prior to which, however, tetanus supervened, and on the twelfth or thirteenth day after entering the Hospital she died.

[Dr. A. R. Nye, Assistant Surgeon of the Charity Hospital, has kindly furnished the following note of the post-mortem examination of this case.—*Ed.*]

POST-MORTEM.

Externally the wound had perfectly healed ; indeed this was the case with nearly the whole course of the canal through which the intestine had passed. There was a very little matter just external to the Septum Crurale, which connected with the cavity of the abdomen through a small opening (scarcely larger than a probe) in the Septum. The sac formed by the peritoneum seemed to have suppurated away. The portion of strangulated intestine had been about three feet from the colon in the Ileum. The two portions of the intestine which had been brought in contact at the seat of stricture, were bound together by slight adhesions. The portion of intestine which had been strangulated was gangrenous.

About three years ago this woman had suffered from Hernia, whilst living in Philadelphia, and was about to undergo the operation, (the hernia having existed for several days) when, being placed under the influence of chloroform, it yielded to the taxis.

It is admitted that the chief danger to be apprehended in this operation, is from too long delay prior to having recourse to it, since aside from the frequently fatal consequences attendant upon such delay, the patients generally recover.

A modern writer upon the subject of Hernia observes, "My decided impression is, that the reason why the operation is so frequently followed by death, instead of being one of the most successful of the great operations of surgery, is, too great delay in resorting to an operation, and the undue and injurious use of the taxis, even after its adoption has proved unavailing."

To what then (unsatisfactory as the enquiry may be) shall we, in the present case, attribute the fatal issue? The hernia had existed about four days before the operation was performed—a longer delay, doubtless, than would have been recommended under existing circumstances, had the well-being alone of the patient to be considered; yet as the operation exhibited no gangrene of the parts, and as the peritoneal inflammation quickly subsided after the operation, showed that the contents of the intestines had not escaped into the cavity of the abdomen, and as she had so far convalesced as to be preparing to leave the Hospital, the final result cannot be attributed to delay before the operation.

Tetanus seems then to have been the proximate cause of death, owing, perhaps, to over exertion too soon after the operation.

An abstract of the above case is reported by Dr. McGibbon, Recording Secretary of the Physico-Medical Society, in the January number of the Monthly Medical Register. At the time of mentioning the case to the Society, it was progressing favorably. The subsequent change has already been stated, and hence the propriety of the present report.

Note.—In Strangulated Hernia, if time (which is always precious in such cases) permits, we should never feel satisfied with our therapeutic means, until we have tried the effects of full doses of opium. Case upon case have been effectually relieved, when the operation has been decided upon, and the patient refused to submit to the knife, by this treatment; and it is always the duty of the Surgeon, when practicable, to give the opium treatment a full and fair trial.

With pounded ice to the tumor, and repeated large doses of opium, preceded, if necessary, by a copious bleeding, we believe more than half the cases of Strangulated Hernia met with in private practice, might be returned or relieved without the use of the knife. We know there are cases for which the knife is the only remedy—but they are exceptional, and commonly serve to encourage us in the opium treatment. The dose must be large—from three to six grains—and repeat according to the urgency of the symptoms and the effects produced.—*Ed.*

Part Second.

EXCERPTA.

I.—*On the use of Purgatives in the treatment of Bilious Fevers, and other Bilious Affections of the South and West.*

BY SAMUEL G. ARMOR, M. D.

In withholding active purgation in the treatment of a class of diseases which prevails during the hot summer and the fall months, especially in the Southern and Western States, I am aware that I come in conflict with high authority; and I would not presume to question such authority, but for the conviction, strongly impressed upon my mind, that as a class of remedies, they are dangerous in the treatment of what are commonly called the Bilious, or Bilious Remittent Fevers of the South and West. It appears to be a common impression with many, that purgatives are the *only* remedies necessary in the treatment of this class of fevers.

It is not my purpose, at present, to inquire into the pathological relations of morbid hepatic secretions, further than as connected with diseased action of the gastro-intestinal mucous membrane. The general principles of pathology and practice, however, apply to all derangements of the hepatic functions.

Although lesions of secretions are generally classified by writers on Pathology as *primary* elements of disease, yet a close examination of the subject must satisfy every reflecting mind that they are mere *symptoms*, or sustain secondary relations in the order of pathological manifestations. Before the lesion of secretion takes place, must there not be either a lesion of the blood, of the circulation, of structure or of innervation? A clear conception of this fact would, I think, throw light on a class of diseases associated with derangement of the hepatic function, and banish from our Nosology those numerous primary and idiopathic affections which are attributed to the liver.

It must be acknowledged, however, that as an excretory and depurating organ, the liver performs an important function in the animal economy; and the rationale of its increased action, and consequently increased stimulation, during the hot summer and fall months, must be apparent to every one who is familiar with the relation it sustains to the respiratory function. And the very importance of its office is a sufficient reason to induce us to investigate more closely its varied pathological conditions, that we may strike out, if possible,

the first link in the chain of morbid action, and thus annul a train of secondary affections resulting from the forward action of a morbid secretion.

The peculiar tendency of Duodenitis to produce functional derangement of the liver has long been recognized by observers. The distinguished physiologist, Broussais, was the first, I believe, to call attention to this subject, and although he carried his views to great extremes, yet everlasting honor is due his memory for the clearness of his expositions of diseases of the gastro-intestinal mucous membrane. It is true, that so far as relates to the duodenal mucous membrane, different explanations have been given of the jaundice that so frequently follows. It has been supposed that a swollen condition of the mucous membrane extending into the ductus communis choledochus, gives rise to mechanical obstruction to the flow of bile from the gall duct; and although in many instances this explanation may be the true one, yet the fact that we may have jaundice without closure of the common duct, is adverse to the unil versality of this explanation. We are led to infer, therefore, that the elements of the coloring matter of bile exist in the blood in health, and that other causes may impair or entirely suspend the secretory function of the liver; thus permitting the coloring matter to accumulate in the blood. In cases of this kind, with the usual manifestations of an icterode appearance of the eyes and skin, and white or clay colored fecal evacuations, we do not often have very marked tenderness over the region of the duodenum.

The question may arise, then—what is the morbid agency which gives rise to increased, suspended, or perverted action of the liver? The answer to this would show that the causes are various, although all agreeing, perhaps, in many essential particulars.

First, congestion from intropulsion of blood, whether from the cold stage of an intermittent fever, or from protracted cold to the surface, will give rise to it. The result of the congestion from any cause, whether active or passive, is the lowering of the vital properties of the gland, and a consequent suspension or perversion of secretion.

Again, perverted secretion may result from a primary diseased condition of the blood itself.

Or lastly, we may adopt the explanation of Bichat, "that between a secreting organ and the surface upon which its excreting duct opens, there is a sympathy by which a stimulus applied to the latter is communicated to the former." As applied to the liver, I should have enumerated this as first in the order of causes, because most important. The illustration of this law is very manifest. We have a familiar one in the effects of food, tobacco, or other stimulating substances taken into the mouth. A copious secretion from the salivary glands is the result. We have no explanation of this but that based on the influence of the sympathetic system of nerves over organic functions, and as applied to secretory organs, we have abundant evidence of this influence. Mental emotions also, such as anger, anxiety, fear and terror, very sensibly affect the secretion of glands. And so great is this perverted nervous influence, that it frequently affects, in a very marked degree, the quality as well as quantity of the secretion. Instances are on record, apparently well authenticated, of the secretion of the liver being rendered so acrid by violent emotions of anger, that at the moment of ejection it irritated the mouth, fauces and orifice of the anus. And the instance related in Carpenter's Physiology, of the violent combat between the soldier and the carpenter, whose wife was nursing a young infant, very forcibly illustrates the effect of passion in changing the secretion of the mammary gland. In our pathological reasonings we do not, perhaps, duly appreciate the influence which the great sympathetic system of nerves exercises over secreting structures.

These remarks are introduced for the purpose of showing that disordered hepatic secretion is a secondary condition, to be removed only by removing

the cause. Hence, in a practical point of view, the very important inquiry as to the nature of the cause.

But if from any cause, general or local, inflammatory or irritative, there is an interruption of the accustomed actions of a secreting organ, congestion of its vessels follows. As applied to the liver, diminished secretion of bile gives rise to a congestive state of the vena portarum and its branches, and in some cases, to a similar state in those organs whose venous system is associated with that of the liver.

This organ, like all others, may be the seat of congestion, of inflammation, or of both. In speaking of congestion of the liver, I allude to a condition essentially different from inflammation of that organ. In acute inflammation, it is mainly the arterial action of that organ that is excited, and the congestion is arterial; whilst in venous congestion of the liver, consequent upon an interruption in its secretory action, the arterial system of the liver is necessarily but little, if at all affected; the congestive state of that organ being, in all probability, limited to the vena portarum and its branches. But from the peculiar vascular structure of the liver, while arterial determination must necessarily be followed by venous congestion, it can in no instance, as in other structures, contribute towards the relief of that condition.

If my premises then be correct, why do we administer cathartics for the relief of biliary derangement? I am aware that it is argued, theoretically, that the serous exhalation from the intestinal canal, caused by the action of a cathartic, unloads the vessels of the liver, and thereby restores its healthy circulation; and this argument might have weight, were it not for the counteracting influence of irritation, caused by the operation of the remedy; but this element of evil, I doubt not, more than overbalances all the benefit derived from the depletion. In many instances, the manifestations of biliary derangement are produced by irritation and phlegmasia of the mucous membrane; and it is very evident that this condition would be only exasperated by purgatives. An increased irritation is communicated to the parenchyma of the liver, and whatever be the intensity of the phenomena attributed to the bile, calmness is generally reestablished as soon as there is a cessation of the local phlegmasia. I regard this as an established fact in pathology of the highest importance.

In our ordinary bilious fevers, therefore, accompanied as they generally are with irritation of the stomach and bowels, I would abstain from the use of cathartics as calculated to aggravate the symptoms of biliary derangement and increase all the phenomena of the disease. I would not be understood, however, as entirely excluding alvine evacuants in the treatment of these fevers. Their operation is sometimes doubtless attended with benefit. The acrid secretion may be a greater source of irritation, forward upon the mucous membrane, and backward upon the gland secreting it, than would be the effect of a laxative to remove it; but it would be with this view, mainly, that I would administer them. The other fact, namely, that the tendency of cathartics is to increase the phlogosis of the mucous membrane, and that this condition is, through sympathy and direct continuity of structure, communicated to the liver, should ever be borne in mind.

If their effect be to indirectly at least stimulate the liver, our deduction may be regarded as illogical. The question may be asked, is not this the great object to be effected? Grant that it is, to say the least of it, a desirable object, and still it by no means follows that the enteric and hepatic excitement will be promotive of biliary secretion. Is not indeed the converse of it true? Yet there may be a possibility that the secretory action of the liver is suspended from the want of the normal sensibility of the duodenal mucous surface.

The chyle, which is the natural stimulus of this surface, may as a consequence, fail to communicate its stimulatory impression to the liver, and a sort

of torpor or paralysis may be the result. This condition is generally manifested by the clay colored or white discharges from the bowels, unaccompanied by hyperæmia and tenderness. If we are able to diagnose this condition, then purgatives, especially the mercurial ones, may be admissible ; although even in this case, broken doses of calomel, short of purgation, would be better practice.

Is it true, that in the class of cases under consideration these are the manifestations ? Is not indeed the very opposite condition generally present, such as local tenderness, irritability of the stomach, and dark discharges, indicating morbid sensibility and hyperæmia of the mucous membrane to the point of effusion of the morbid and fluid elements of the blood ?

Shall we then in this condition administer cathartics ? Many reasons forbid ; I will be content with enumerating a few :

1st. As a general and valuable therapeutical principle we should never resort to medicinal agents when nature is doing her proper work.

2d. Cathartics will, in all probability, increase the very difficulty which nature is endeavoring to overcome, by adding irritation and determination to the congestion already existing.

3d. Protracted congestion of the liver, by damming back the venous circulation of the abdomen, may give rise to formidable disease of the intestinal mucous membrane.

And lastly, there is no indication, as a general proposition, for their use, as evinced by the color and character of the discharges from the bowels ; tne dark discharges characterizi ng hyperæmia and effusion, positively contra-indicating their use.

I might add, that experience abundantly demonstrates not only the inutility, but the positive injury following the use of active and repeated purgation in the treatment of the miasmatic fevers of the Mississippi Valley. I doubt not but that hundreds have fallen victims to erroneous views on this subject, propagated by Hamilton in his work on Purgatives.

I have alluded more especially to the use of cathartics in the treatment of ordinary bilious fevers, as they are generally termed, and have called attention to but one pathological feature of the disease. In so doing, I would not be understood as referring all the phenomena of bilious fever to derangement of the biliary organs ; nor to enteritis or gastro-enteritis as the cause ; notwithstanding this is undoubtedly a frequent and formidable super-addition to the general fever.

The effect of cathartics is also bad on the gastric mucous membrane, and consequently on the functions of the stomach ; and it is only necessary to reflect on the importance of the perfect action of the digestive apparatus to a maintenance of a healthy condition of the entire system, to be convinced of the multiplied variety of secondary disturbances which may result from derangement of the primary action of the series of animal functions. It is indeed the "golden bowl at the fountain," the "wheel at the cistern," and if its functions be perverted, disturbance is, of a physical necessity, propagated remotely through the system. Strike upon the first link of the chain of sympathies, and vibration runs through its whole extension. Hence the varied course which the derangement of function may pursue, and hence the difference of character which disease may ultimately assume. If this thought were more rigorously pursued in all our investigations at the bedside, the result would doubtless be a more rational and simple practice.

Medicine has too often and long been engaged, and too often worsted, in the

contest with affections of an idiopathic and independent character, which were the secondary, or perhaps more remote result of pathological derangement; and in no instance, perhaps, have we a more striking illustration of this than in diseases of the gastro-intestinal mucous membrane.

[*Ohio Medical and Surgical Journal.*)

II.—*Statistics of Cancer.*

Sir—Your Journal of the 22d of May contains a statement, quoted from the first of the lectures which I recently delivered at the Royal College of Surgeons, to the effect that "persons operated upon for cancer die, upon an average, thirteen months sooner" than those upon whom no operation is performed.

Allow me to observe, that the statement had reference to cases of schirrous cancer of the breast. In such cases, I believe that the general average duration of life, after the patient's first observation of the disease, is 49 months; that the average life of those whose breasts are removed, and who survive the effects of the operation, is forty-three months, and that the average life of those in whom the disease is allowed to run its course, is about fifty-five months.

In the second lecture, I said that the general result of operations for medullary cancers is very different; and that although they are so seldom long survived that they are generally considered to be less beneficial than the operations for schirrous cancers of the breast, yet, on the whole, they are more so. The general average of life of persons affected with medullary cancer of the eye, testicle, breast, bones, or other external organs, may be reckoned at about twenty-four months from their first notice of the disease; but I believe the average for those from whom the primary disease is removed, and who do not die in consequence of the operation, is about thirty-four months; while the average for those in whom the disease is allowed to run its course is scarcely more than a year.

In the third lecture, I expressed the belief that on the whole the operation for epithelial cancers is even more effective in prolonging life than the operation for medullary cancers; but that the wide diversities in the duration of life amongst those affected with this form of cancer, make it very difficult at present, to deduce such an average as may be relied on. And I would repeat what I said in one lecture respecting all these averages, namely, that such general results deserve only general consideration in the treatment of particular cases of cancer. They may justly determine a general rule of action, but it can be only such a rule as must admit of numerous exceptions. In many cases of schirrous cancer there are sufficient reasons for operating; and in many cases of medullary and epithelial cancers, reasons as sufficient for refraining. The right course must in each case be determined by a just appreciation of all the conditions each presents.

I am, sir, your obedient servant,

JAMES PAGET, Henrietta st., Cavendish Square.

June, 1852. [*Ibid.*

III.—*Society for the Relief of Widows and Orphans of Medical Men.*

The anniversary dinner of this Society took place at the Astor House, on the 10th ult., as announced in our last. The attendance was large, and every thing passed off in the most satisfactory manner. After the invocation of a blessing by the Rev. Dr. Vermilye, ample justice was done to a sumptuous entertainment, got up in Coleman and Stetson's best style.

Letters were read from Gov. Fish, Hon. Francis Granger, and Hon. H. T. Duncan of Kentucky, the latter enclosing a handsome donation.

Dr. Delafield responded to the first regular toast, "Our Society," etc. The next toast, "The liberal professions, they meet the three prime necessities of humanity, happiness, secured by religion; liberty, by law; and health, by science," was happily responded to by the Rev. Dr. Vermilye on the part of the clergy, by J. W. Gerard, Esq., on the part of the law, and Dr. Stevens on the part of the Medical profession. A speech highly complimentary to the medical profession was made by Mayor Kingsland.

The "Army and Navy," etc., was responded to by Dr. Decamp in behalf of the army, and Dr. Guillou in behalf of the navy.

Dr. Francis, in answer to a loud and unanimous call, responded to the fourth and last regular toast, "Woman, without her Eden lacked its chief blessing; with her the humblest cottage becomes an Eden," and delighted the Society with one of his characteristic speeches, overflowing with humor as well as good feeling Speeches were also made by Drs. Henschel, Detmold and Griscom, the former as President of the German Medical Society.

Dr. William Cockroft of this city, and Dr. Mercer of New Orleans, constituted themselves Benefactors of the Society by the payment of $150 each. Donations were received from Hon. H. T. Duncan, of Kentucky, Mayor Kingsland, Mr. Charles Stetson of the Astor House, Gen. Macdonald of Flushing, Mr. Quintard, Dr. Jacob Harsen, Prof. A. Clark, Doctors Dubois, Borrowe, etc., amounting in the whole to nearly two hundred dollars. Several applications for membership of the society were presented.

The annual statement of the Secretary of the Society, copies of which were freely distributed, states the present number of members to be eighty-one, of whom thirty-one are life members by the payment of $100 at one time. Two have joined the Society during the present year, and twelve members have died since the organization of the Society.

The amount of the funds of the Society is		$12,542 49
Invested in bonds and mortgages at 7 per cent,	$12,300 00	
Deposited in Farmer's Loan and Trust Company,	242 49	
		$12,542 49

The following gentlemen have constituted themselves Benefactors of the Society by the payment at one time of one hundred and fifty dollars each, namely, Edward Delafield, M. D., A. Gescheidt, M. D., William Detmold, M. D., Thomas Ward, M. D., and A. H. Ward, Esq., being the first lay benefactor.

One family, that of a late member recently deceased, is enjoying the benefit of relief from the Society, the first recipients of its aid since its foundation, which now dates ten years back; the widow receiving $100, and each of five children, under fourteen years of age, $25 annually, in semi-annual payments.

The annual meeting of the Society was held on the 24th ult., and the following are the present members of the Society :

James C. Bliss, M. D., President.
James Anderson, M. D., }
A. H. Stevens, M. D., } Vice Presidents.
Valentine Mott, M. D., }
Isaac Wood, M. D., Treasurer.
H. D. Bulkley, M. D., Secretary.

(*N. Y. Medical Times.*)

IV.—*Professional Aphorisms.*

The talented editor of L'Union Medicale, M. Latour, lately gave a few extremely apposite and amusing professional aphorisms, in one of his clever feuilletons. We shall extract a few.

1. Life is short, the making of a practice difficult, and professional brotherhood deceptive.

2. A man's practice may be compared to a field, on which *tact* acts as a manure.

3. A medical practice may be likened to a flannel waistcoast; neither can be left one moment without risk.

4. The practitioner who is often absent runs the same danger as a lover, for both may find themselves supplanted on their return.

5. Take great care of your first patients, ye beginners! for these are the seed from which your practice is to spring.

6. When a medical man wishes to get rid of a troublesome patient, he need but send in his bill.

7. The practioner who expects his reward from the gratitude of his patients, may be likened to the countryman who waited, in order to cross the river, until the waters had done flowing.

8. To ask an exorbitant fee always redounds to the disgrace of the profession. A wealthy patient, who was asked an enormous sum by a surgeon, after an operation, answered "You ought to have said at first, 'Your money or your life.'"

9. When the blind credulity of the public in medical matters is considered, one does not wonder that there are so many quacks and imposters, but, on the contrary, that there are still so many upright medical men.

10. Consultations are either very useful or dangerous, just as the usual medical attendant knows how to manage. It is foolish to have recourse to them too often, but still more foolish to reject them altogether. Don't wait until the friends of the patient ask for a consultation; but don't talk of consultation if you think the issue will be favorable.

11. It is not an easy task to come out of a consultation without being a little lowered in the estimation of the patient or his friends; the more so, as there are physicians and surgeons, who, with the utmost urbanity, throw out perfideously concealed hints, which the practitioner should immediately take up, and boldly insist upon a clear statement.

12. A consultation is very often a sort of note of hand, drawn by the usual attendant upon the patient, for the benefit of the physician called in to give his opinion.

At the conclusion of these excellent and well told aphorisms, (of which we have extracted but a very few) M. Latour very justly finds fault with the exag-

gerated delicacy of the Medical Societies of Paris, who reject all those practitioners who put a plate to their doors.

The author likewise discusses the habit of giving instantaneous fees to physicians and surgeons, which prevails in England, and advises his fellow practitioners not to insist upon this mode of payment. He shows that the bulk of the profession are paid, both in this country and in France, in the same manner—namely, at the expiration of a determined period, or at the end of the treatment. (*London Lancet.*)

V.—*The Medical Treatment of the late Duke of Wellington.*

Every event connected with either the life or death of the renowned hero and distinguished statesman, whose loss England now deplores, has become of more or less historical importance. Strange then is it that the exact period of the birth of the great Duke of Wellington should be still a matter of uncertainty, and that the immediate cause of his death should be a subject of doubt and discussion. As it is probable that the Lancet will be referred to by historians for correct information on the professional points that may become the subjects of their inquiries, the following narrative of the principal events connected with the recent calamity may be relied upon as perfectly authentic.

The Duke of Wellington was supposed to be in his usual health until the morning of the day of his death; how far this opinion may be correct will subsequently appear. He had been engaged until dusk of the preceding evening in reading the Report of the Oxford University Commission, and did not suspend his labors until compelled by inability to distinguish the print; having at the time noticed the light on the opposite coast, he observed that it was the "darkness," and not the failure of his sight, which caused the print to "bother" him. He dined heartily shortly afterwards, at seven o'clock, and took for dinner mock turtle soup, turbot, venison and pudding. As was his usual practice, he drank neither wine nor spirit. He retired to bed before ten o'clock, and during the night visited the closet. The appearances found there showed, that whilst the functions of the bowels were healthily performed, the Duke, contrary to his habit, must have returned hastily to bed, probably in pain. His Grace's valet, Mr. Kendal, who called him at his usual hour, shortly after six o'clock, observed that his master was not well, and that his breathing seemed oppressed.

His Grace not appearing disposed to get up, his attendant, after remaining some time in the room, left him until half past seven o'clock. Returning at this time, he was directed be the Duke to send for the apothecary. This he (Mr. Kendal) immediately did, and Mr. Hulke, of Deal, was in attendance about nine. He found his Grace complaining much of pain across the chest, and at the pit of the stomach. His tongue was furred; he had distressing eructations, and his pulse was irregular. It was intimated by Mr. Hulke that he would send a draught, and he recommended that his Grace, in the meantime, should take a little warm tea and toast. Mr. Kendal shortly afterwards endeavored to act on this recommendation, but the Duke seemed unable to swallow the tea. He became sick, and threw up a portion of the venison he had eaten the evening before. This piece of meat had not been altered in appearance by the process of digestion. A general convulsive attack ensued, of some minutes' duration. After the fit, the Duke to some extent recovered his consciousness. He laid on his back, his favorite position when in bed, with his hands clasped, and placed at the back of his head, his eyes occasionally

following persons in the room. Mr. Hulke was immediately sent for again and speedily returned, accompanied by Dr. McArthur. His Grace had another, but less severe convulsive attack, between eleven and twelve o'clock. Further medical assistance was sought for from London, and telegraphic messages were sent to Dr. Hume, who had long been the medical attendant of the Duke, to Dr. Robert Ferguson, a friend of Dr. Hume, and to Dr. Williams, who alone of the three happened to be in town, but who, unfortunately, did not arrive till the Duke had for several hours ceased to live. This lamentable event occurred about half past three.

After the first convulsive attack, the Duke's exhaustion rapidly increased, and his breathing became much embarrassed; he had slight twitchings in one arm, but no paralysis. When an effort was made to give him either medicine or drink, his Grace generally exhibited reluctance to take it, pushed away whatever was offered to him, and showed his usual dislike to be interfered with. The treatment employed consisted of a mustard poultice applied to the pit of the stomach by the valet; a mustard emetic, partially administered, and without action; a dose of calomel and small quantities of stimulants were offered to the patient, but were not swallowed. For some time before his death, his Grace had been removed to a chair, to relieve the difficulty of breathing; but his medical attendants, finding that his pulse, already extremely feeble, became in that position still weaker, his Grace was again restored to the recumbent posture.

Such, then, appears to have been the progress of the short and fatal illness of the great Duke of Wellington—an illness that terminated so calmly, that not an expiring movement was observable by the medical attendants present.

Let us seek, from this history, to discover the cause of the terrible calamity the nation so deeply laments.

It must in the first place be remembered, that the atmosphere of the sea coast, when at all cold, causes in the aged, or in debilitated persons, more or less accumulation of blood in the internal organs, and more or less consequent impairment and irregularity of their functions. During some days preceding the 15th of September, the day of the Duke's death, there had been a hot mid-day sun, a considerable wind, chiefly from the north, and the evenings and nights were cold and chilly. The thermometer on the night preceding the fatal event, was only six degrees above the freezing point; on the preceding day it had been up to 92 degrees. No precautions were taken to obviate the effects of such a change on the aged and necessarily weak system of the Duke, and the palor of his countenance, observed on the preceding Sunday, showed that this influence was telling on the circulation. The stomach was thus ill prepared to receive a hearty dinner, and the difficulties of that organ were further increased by receiving a considerable quantity of food imperfectly masticated, in consequence of the Duke's loss of teeth. Nor was the process of digestion promoted, or the powers of the stomach and heart invigorated, by the use of stimuli. The stomach therefore contained a mass of undigested food, and became distended with flatus: the functions of the lungs were impeded; the heart's action was disturbed; the nervous system participated in the morbid processes going on; and as a child would have convulsions under similar circumstances, so had the Duke of Wellington, who, becoming exhausted by the disturbed and enfeebled condition of his nervous and circulating systems, rapidly sunk and expired. Why or wherefore such an attack should be called epilepsy, we are at a loss to conceive. The certificate of death, at least as it has appeared in the journals, is not correctly expressed.

The subject of the treatment afforded to the Duke has been fully discussed; but it is hardly fair for those who were not present, and therefore ignorant of the difficulties met with, to condemn it. We shall not refer to what was done,

or what was left undone, but briefly state what, under the circumstances as represented, might have been done, with the prospect of a gratifying result.

We have already alluded to the risks which the changes of temperature, more especially on the coast, entail on the feeble and the aged; we need not say how they may be watched, and their effects obviated. There is no question that these influences were exerted over the Duke of Wellington, a man in his 84th year, who was habitually careless as to external impressions, and who studiously avoided wine and spirit. Aged persons, whose digestive powers necessarily participate in the subdued energies of the constitution, ought to be careful as to the quantity and quality of the food they customarily consume. Great neglect on these points must be attended with annoying, if not dangerous consequences. Nor should it be forgotten that weak stomachs, after a hearty meal, are greatly assisted in their functions by the moderate use of stimulants.

It is probable that had the Duke's stomach been relieved by vomiting in the early part of the morning, he would now be with us; it is even possible that such an effort, if successful at nine o'clock, might have saved him; but every hour added to the exhaustion, and rendered such an act more difficult. Under such circumstances, that is to say, when stimulants cannot be administered by the mouth, stimulating and nutritive lavements should be administered; and these may be rendered anti-spasmodic in cases where convulsions exist. Support in such cases is essential, for though the stomach is occupied by the mass of food, none is digested, none enters the system, which literally sinks from exhaustion and the irritation and disturbance of the nervous system, caused by undigested food in the stomach, itself a mechanical obstacle to the free action of the lungs and heart. An effort should be made to support the circulation, which during the night more or less languishes, as the respiration becomes slower during sleep, and to determine the blood to the surface by general and continued frictions, and by mustard footbaths, the body being kept in that position which will cause the least possible exhaustion of the powers of life.

The principles which directed and governed the great Duke of Wellington will not be without their influence on individuals in every sphere and class, who read attentively the details of that eventful life which has given volumes to history, the most remarkable either ancient or modern. Neither will the closing events of that life be without its advantages in conveying an instructive moral.

The strongest constitution cannot be roughly handled with impunity—advancing age must bear with it the impression that it does not possess the powers of youth; and those who have to administer to sickness and suffering must remember that all in this respect are equal; and that rank, dignity and grandeur should not produce a degree of timidity in the medical practitioner that would allow a duke to die undisturbed, while the life of a plebian would be saved, by an apparently harsh, but prompt and decisive action.

(*Ibid.*)

VI.—*Under what circumstances does Hypertrophy occur—What are its causes —and how is it effected in the various structures of the body?*

Simon defines hypertrophy to be a multiplication, or a magnification of the normal elements—the exaggeration of a tissue, or of an organ, in its own particular type. (*Ed.*) He says:

For instance, take a large liver; I repeat, that you would not call it hypertrophied for being full of blood, or for having a quantity of serum or lymph effused through its substance, or for being stretched and bulged by an abscess or hydated cyst in its interior; but simply and singly you call it a hypertrophied liver, when it has got more liver than it ought to have— more of that very stuff for which you call it liver, rather than muscle or skin.

It may, I think, be stated as a general fact in the economy, that if the nutritive conditions be perfect, if the blood and the organs be what they should be, whenever the active structures of the body renew themselves, they do that and something more. Nature gives them enough for their exact necessity, and for something beyond it; they renew themselves more largely and luxuriantly than in their original construction.

Of this general fact or law I can give no casual explanation; I cannot say what makes it be so; but its purpose is obvious, and it brings before one vividly that vis medicatrix naturæ, which the older physiology delighted to speak of, watchfully strengthening every part of the organism in proportion to the stress upon it, and always contriving that no active portion of the system shall become languid, for the want of a sufficient renovating material.

But, whatever may be the explanation of the fact, it seems to me the expression of a law including all the chief cases of pure hypertrophy. In all such cases, if you look carefully into their whole pathological history, you see what may be generalized as a vigorous reaction against waste; a reaction, which in every case, as I have said, seems to go somewhat above the exact quantity of repair and restitution due to the part, and which, when it extends over sufficiently long periods of time, is able to accumulate its effects as a permanent overgrowth of the affected tissue.

The chief heads under which you may consider the subject of hypertrophy, are the following: Hypertrophy of muscle; hypertrophy of glands; reparative hypertrophy.

1. Muscle grows exactly in proportion to its exercise; and this is true not only of the voluntary muscles, such especially as those of the limbs, but even still more remarkably, of the involuntary muscles. See, for instance, in the heart; where any obstacle has opposed itself to the circulation of blood—where the mitral orifice has allowed regurgitation—where the aorta has been rendered rigid by calcareous deposit, or where its origin has been obstructed by fibrinous concretions—how immensely the muscular substance of the ventricle increases in its thickness and its power. Or observe the bladder, where enlargement of the prostate gland, or the presence of a calculus, or the permanent impediment of a strictured urethra, has interfered during many years with the process of urination, and you will find that the increased labor thus thrown on the muscular coat of that hollow viscus will have caused it to become hypertrophied to several times its normal thickness.

2. The hypertrophy of secreting glands has been very much overlooked, for what is now an obvious reason. A gland may be materially hypertrophied without being larger than its normal size; it may merely be denser than natu-

ral. The essential phenomena of the disease are only to be followed by the microscope; but they deserve the most attentive study; for it is particularly in respect of glands and secreting surfaces, that I would beg you to remember what I have already mentioned, that under certain circumstances, their hypertrophy runs to inflammation, and produces destructive consequences. Thus, in that more common form of Bright's disease which I have described, in the Medico-Chirurgical Transactions, under the name of subacute nephritis, there is an initiatory stage, in which it is difficult to pronounce whether the organ be in a state of hypertrophy or inflammation; that is to say, there are none but normal elements present; nothing but a profusion of the natural cell-growth; and if it were not for the previous presence of albumen in the urine, or perhaps for finding a few of the Malpighian bodies injured by the hyperæmia, one might almost speak of the disorder as a mere hypertrophy in the secretive structure of the gland. The same is the case, too, in respect of the early stage of cirrhosis of the liver. It may be observed, that the causes which produce this redundant cell growth in the glands, and which eventually excite inflammation in them, are precisely what are called their specific stimulants, i. e., such ingesta, or such products of digestion, as excite them to secretion. As the waste of a muscle is in contracting, so the waste of a gland is in secreting; and thus, according to the universal law, excitement of the secretory functions leads to hypertrophy of the secreting structure. Among materials which excite the glands to their characteristic manifestations, and which may be called stimulants of the glands, none are more energetic than those very substances which the gland ought to eliminate. Nothing can more thoroughly dispose a gland to action, and therefore nothing can more predispose it to ultimate hypertrophy, than an increased accumulation in the blood of those particular materials which the gland should appropriate to itself for secretion. Hence no doubt it is, that when one of two symmetrical glands has been removed, its fellow undergoes a slow hypertrophy, so as to do compensative work; for the stimulant material in the blood, which originally divided itself between two outlets, now concentrates itself on one, increasing first of all its waste, and subsequently its nutrition.

The thyroid gland, in the disease called goitre, or bronchocele, often (if not always) presents at its commencement a pure hypertrophy in the secreting structure. You are probably aware that the natural arrangement of this organ is in closed vesicles, lined, not by nucleated cells, but by simple nuclei, partly applied to the walls of the vesicles, partly floating in their liquid contents. Now, when hypertrophy begins here, these nuclei undergo a higher development, and give origin to large transparent cells, which fill and distend the limitary membrane of the vesicles. Analogy would justify the suspicion, that whatever exterior influences produce this endemic disease, must stand in some peculiar relation of chemical affinity to the natural intra-vesicular secretion of the gland, and that thus (principally, if not only,) they would possess their power of stimulating the organ to increased efforts of secretion and growth.

3. As respects the reparative process, I may give you one or two illustrations of the general doctrine of hypertrophy; as, for instance, this; that in the mechanical structure of the body, where disease or accident has either weakened a tissue, or has thrown augmented stress upon it, its reparation generally becomes hypertrophic.

We very commonly see this illustrated in the skeleton. If the tibia or fibula be partially removed by disease, or by experiment, that one of the two bones which is left is apt to undergo a kind of compensative development, becoming thicker and stronger at the weakened portion of the limb. So, where recovery has taken place from rachitic curvature of the spine, we find bone deposited in various degrees of superabundance; sometimes locking the spinous processes together, sometimes expanding the surfaces of contact of the

bodies of the vertebræ, or anchylosing their edges. Or, in the bones of the extremities, which have been bent by rickets in childhood, and have subsequently been repaired, we see strong ridges thrown up along the concave aspects of the curve; and this superabundant bone is placed (as Mr. Stanley observed) exactly where the curvatures of the bones render them mechanically greatly weaker, and where, as a consequence, their greatest waste of tissue occurs.

The various osseous processes for muscular insertion, and the several surfaces of bony contact in the vertical plane of the trunk, are the portions of the skeleton most liable to undergo excessive waste; the former by traction, and the latter by pressure, and they are the portions, consequently, most liable to quantitative errors of nutrition.

Before leaving the subject of hypertrophy, perhaps I should mention another law, though it is one of very limited application, viz., that with some contiguous organs, mutual pressure is in so far a condition of harmonious development, that the absence of one of such organs occasions some capricious growth in the other. There appears to be this necessity of mutual pressure between the brain and the bony case which contains it; and in patients where the brain has undergone a slow atrophy from disease, the skull has been found presenting a very peculiar hypertrophy, inwards, chiefly by the expansion of its diplœ, so that the inner table of the cranial bones has maintained its natural contact with, and adaptation to, the shrunken convolutions of the brain. This is perhaps not very frequent; but in the majority of cases, where chronic shrinking of the brain has occurred, the parts show the same tendency to the maintenance of mutual pressure, by the effusion of a quantity of serum which occupies all the interval between their separated surfaces.

Similarly with the alveoli, it can hardly be considered otherwise than in some respects a hypertrophic process, that the alveolus, from which a tooth has been dislodged, fills itself with bone. The teeth themselves too, under certain circumstances, sometimes show what is rather a simulation of hypertrophy than its reality, as you may at any time see, by removing an incisor tooth from the jaw of a rabbit. You will find that the opposite tooth, against which the removed one used to press, grows to an unusual, almost to an indefinite length, for want of the pressure and friction which formerly kept the waste of its free edge in proportion to the growth of its other extremity. Obviously, the hypertrophy is here only apparent; there is no true overgrowth of structure.

VII.—*Poisoning Fungi.*

A letter from Montierender, in France, says, that a woman who acted as cook to M. de Coucy, a retired officer, brother-in-law to Gen. Oudinot, having lately prepared some mushrooms gathered in a neighboring wood, served up the dish to her master, and partook of it herself, as well as gave a portion of it to another woman and her son, a boy of fourteen years. In some hours after symptoms of poisoning appeared, and although every assistance was given, the three adult persons expired the next day—the boy alone being rescued from death.

VIII.—*Chloroform in Obstruction of the Bowels from Spasms.*

BY J. D. CAIN, M. D.

Every physician meets, in the course of his practice, with cases of obstruction of the intestines, which has come gradually or suddenly, generally from some cause of irritation existing in them. The obstruction in these cases consists of a spasmodic contraction of a portion, or of portions of the intestines, generally the small. The plan I formerly pursued was, to cease all attempts at forcing a passage by means of cathartics, if one or two brisk cathartics failed, and to resort to opium freely, enemata of warm water, melted lard or butter, sweet oil, etc., the warm bath, fomentations to the abdomen, and other means of inducing relaxation. For more than two years I have used Chloroform as a more powerful agent than opium, and its preparations, and as more certain in relaxing the muscular system. The Chloroform, administered in greater or less inhalation, soon produces a greater or less degree of resolution, and taking advantage of the relaxation thus effected, I give enemata, either stimulating, mucilaginous, or oily, which in a short time bring away fæcal matter. The inhalation may be repeated as often as in the judgment of the physician the case demands.

Chloroform possesses the immense advantage over opium, of relieving effectually and promptly the pain, and in not leaving the bowels in a constricted state, the sedative effect soon passing off.

Seven cases have been thus treated by me with highly satisfactory results. In one case only have I experienced any difficulty in inducing the requisite degree of relaxation of the bowels. The subject of this case was very slightly susceptible to its influence; but the pain was completely relieved by frequent inhalations, and the obstruction gradually overcome.

[*Charleston Medical Journal.*]

IX.—*Homœopathic Revelry.*

The friends and supporters of the London Homœopathic Hospital held their anniversary festival lately at the Albion. A dinner is a sensible thing, and therefore the votaries of Homœopathy cannot be accused of unmitigated folly. The right honorable the Earl of Albemarle presided as chairman; doubtless this nobleman, so distinguished in the scientific world, so well qualified, by anatomical, physiological, nosological researches, to form a sound judgment on a medical question, considered well what he was about before lending his name and influence to a system which proclaims the whole science of medicine, as professed by the Colleges of Physicians and Surgeons, a mistake. The tickets, including wine, for this banquet, were a guinea each, which proves that the Hahnemannites do not entirely carry out their principle of "similia similibus," as, if they did, they would dine for the good of Homœopathy on homœopathic fare, eat infinitesimal globules of muscular and vegetable fibre, and drain goblets of proportionate contents, considerably more diminutive than the acorn cubs of Queen Mab, to whose court homœopathic doctors might well enough be physicians. Subscriptions and donations are received for this infinitesimal charity by certain bankers; but neither are these contributions expected to be infinitesimal, or we should be disposed to beg the Homœopathic Hospital's acceptance of the billionth part of a grain of the perspiration of a sovereign which had been subjected to Mosaic diaphoresis.

[*English Journal.*]

X.—*On the Treatment of Typhus Fever by Sulphate of Quinia.*

BY JOHN F. M'EVERS, M. D.

[*A. Hester, M. D.*

Dear Sir—I beg leave to invite your attention to the following remarkably interesting paper, which I find in one of my exchanges, and trust you will deem it worthy a place amongst your "Excerpta." The cases reported afford strong support to the plan of treating Typhus Fever by the Sulphate of Quina proposed by Dr. Dundas of Liverpool—they will at least serve as a fair off-set to the unfavorable trials published by Dr. Bennett and Dr. Christison of Edinburg. It seems that none of these writers have attempted to cut short idiopathic fevers, whether intermittent, remittent or continued, by very lage doses of quinine and opium, administered in the forming stage, and before organic lesion has taken place—yet if further experience should confirm the improvement claimed by Dr. Dundas, he ought to be considered a benefactor of mankind.

Rely upon it, sir, an important revolution has commenced in regard to the pathology and treatment of idiopathic fever, and it must progress in spite of prejudice and ridicule, for *truth is mighty and will ultimately prevail.*

Yours, truly,

E. D. FENNER.

5 Carondelet street, January 18th, 1853.]

In presenting the details of a few interesting cases of typhus fever treated in the Cork Fever Hospital, it is due to Dr. Dundas of Liverpool, whose brochure on this subject led to their successful issue, to acknowledge the valuable service which he has rendered to the profession by the introduction of his novel and generally successful treatment of this formidable disease.

It would appear, by a reference to Dr. Dundas' pamphlets, that he has had considerable experience of tropical fevers, and he states, what is confirmed by other writers, especially by military authorities, that quina will be almost invariably successful in the fevers of hot climates, if administered at an early period, and in sufficiently large doses—twelve, fifteen or tweuty grains being a common dose in these latitudes—repeated at short intervals, say every two hours, until dizziness of the head or tinnitus aurium be produced; an effect of the remedy, however, although characteristic and desirable, which does not always follow this peculiar mode of administering quinia, and yet the disease may yield to the potency of a few doses.

By the success which has attended the use of quina in the hands of Dr. Dundas, he seeks to establish the identity of the typhus fevers of Europe with the remittents and intermittents of the tropics; and in reference to this part of his paper, it is curious to find, that as far back as 1786, Dr. Skete, who wrote on the use of bark in fever, broached a similar opinion. He says, "If the remittents of warm climates are but the continued fevers of this country, in a more violent degree, and if the effects of the bark are admitted in such remittents, does it not necessarily follow that bark would be endowed with similar powers, even in the fevers which every day occur to our notice, I mean those of the typhoid kind, which are so frequent in all large towns, especially in London and in Edinburg."

The treatment of typhus fever introduced into practice by Dr. Dundas, and to which I purpose to call attention in the following observations, consists in the administration of sulphate of quina in doses of ten grains, repeated every two

hours, until dizziness of the head, or tinnitus aurium, shall be produced; or, should these evidences of the curative effects of the remedy not occur, the medicine is continued until a general amelioration of the state of the patient takes place; broth and a small quantity of wine being allowed, purgatives, or even aperients, not being deemed necessary during the treatment. When the dizziness or the tinnitus are very urgent, Dr. Dundas resorts to an emetic, which, in my own practice, I have not made use of; he also states, that if emetics are had recourse to at an early period, the quina is likely to be more successful. This treatment is resorted to at all stages of the disease, and frequently in the advanced periods, under circumstances which would be considered by the experienced physician as indicative of the worst form of typhus fever; and this method of administering quina is almost invariably attended with the happiest results.

Immediately after having become acquainted with Dr. Dundas' views on this subject, several persons laboring under bad maculated typhus were admitted into our hospital, which gave me opportunities of testing the value of his opinions; and I must confess that I pursued the inquiry with much doubt, as I looked on some of the cures related by him to be of too marvellous a kind to justify my adoption of this treatment without further confirmation of its value; however, I have now tested the remedy in nine cases, and with the exception of one, it has been signally successful. The first of these cases was the following,—the notes of which I take from the daily reports of the Fever Hospital.

Pat Ryan, aged 28, a laborer, was admitted into hospital on the 1st January, 1852, from Hop Island. His urgent symptom is headache; pulse 100; tongue foul; skin hot; had taken purgatives at home, and was treated since admission in the usual way with salines, ablutions, etc., until the thirteenth day of his illness, when the usual signs of bad typhus became apparent. On the previous day his skin was mottled, and now the entire surface has assumed a dusky hue. Pulse 112, feeble; tongue parched, with sordes on the teeth and lips; bowels free; some general fulness of abdomen, with epigastric tenderness; kidneys acting; headache increased, and raves a good deal. He was ordered to take ten grains sulphate of quina every second hour, and to have broth and four ounces of port wine.

The changed condition of this patient at my next visit was most remarkable; the pulse was considerably reduced; the tongue was moist and cleaning, in fact it had lost the dark color and parched appearance it presented the day before. The man slept; there was less abdominal fulness and tenderness; the kidneys acted well, and the bowels were free. He took sixty grains of quina without its having produced dizziness or tinnitus aurium. The medicine was given in the form of mixture with a little sulphuric acid; the two or three last doses sickening him a little. I then ordered it in the same dose in the form of pills, repeating it every three hours, which he bore without sickness. On this day he bore forty grains, and on the following day he was convalescent. It is remarkable that the father of this patient, who was admitted a few days previously, passed through the same type of fever, and treated in the ordinary method, and died on the fifteenth or sixteenth day of his illness.

The second case was that of a young man aged 19, admitted on the 14th of January, for some days under my care, whose urgent symptom was headache, with great prostration of strength. On the eighth day his breathing became very much hurried, unattended, however, with cough, nor did the stethoscope elicit any abnormal sound; the man being remarkably pallid, except during two short exacerbations, which occurred in the twenty-four hours. I ordered him aromatic spirit of ammonia mixture, with a small quantity of wine, and a sinapism to his chest.

The following morning, on examining the chest, I discovered a purple patch occupying the part to which the mustard had been applied. His respiration was improved, but he complained of intense headache. Pulse 108, and feeble: no sleep. The purple patch induced me to institute a careful examination of his body, and on turning him in the bed, I observed the lower portion of the back and the nates covered with purple maculæ. The case I looked on then as well adapted for the administration of quina, and accordingly I ordered ten grains every two hours, together with broth, and two ounces of port wine. The third dose produced violent headache, with tinnitus aurium, when the medicine was discontinued.

At my next visit, on the following morning, all his symptoms were improved, the tinnitus aurium left him in a short time after the medicine was laid aside, and the headache was greatly mitigated; he slept and expressed himself much better. I placed him again on the quina, when the third dose produced the same results as yesterday, but there was so great an amelioration of all his symptoms, that I considered him proceeding to convalescence, and gave him only two grains of quina three times a day, after which his recovery was rapid.

The next two cases were females, both of whom presented unfavorable symptoms, and in whom the remedy was equally successful.

The fifth case was one of great interest, exhibiting other symptoms of an unfavorable nature, in addition to those which have been enumerated in the preceding.

John Eames, aged 55, a smith, was admitted on the 23d of January, with bad typhus, having been discharged from hospital on the 3d instant, cured of ordinary fever, with bronchial complication. On the ninth day of his second attack he became mottled, and talked incoherently; on the tenth day he was not improved; he had no sleep; the tongue was parched and dark, and protruded with difficulty; stools involuntary; pulse 120, and feeble. He was ordered to take ten grains of sulphate of quina every second hour, and to have broth and two ounces of port wine.

Half past 9, P. M. The quina was commenced at one o'clock; he has taken fifty grains, and appears improved in every respect; he is more collected and speaks with less difficulty; he has had two large voluntary evacuations from the bowels; the medicine was directed to be continued.

On the eleventh day, I found that he had taken sixty grains since my last visit, and although he did not sleep much, and had some singultus in the night, he was much improved in other respects. The pulse had come down to 100; the tongue was still parched and brown, but he was perfectly conscious; he was very deaf, and the maculæ were improved in color. On this day he took only four doses of quina, it having been omitted on account of the "buzzing," as he expressed it, which the remedy produced.

12th day. Pulse 96; tongue moist and cleaning; the bowels open, and he passes water freely; to take five grains of sulphate of quina every fourth hour.

13th day. Pulse 84; the tongue clean; skin cleaning and scaly; convalescent.

I will not occupy time with the details of all the cases in which I have tried this remedy, but will content myself with the recital of one more case, which occurred within the last few days, and which I consider in every way worthy of observation.

Mary Delany, aged 22 years, admitted from Ballincollig on the 10th March, nine days ill; headache; petechiæ; pulse 120 and very feeble; tongue parched; got the usual aperient of the hospital.

10th day. One stool; pulse 120, feeble; tongue parched and split; great thirst; respiration hurried; had no sleep; she is often flushed, and in the intervals deadly pale; countenance anxious, with the appearance of suffering; great fulness of abdomen, with tenderness on pressure, especially at the epigastrium; masculæ of a dark brown. She was ordered ten grains of sulphate of quina every second hour, and to have broth and two ounces of red wine.

11th day. Bowels not open; tongue moist and cleaning; pulse 100; kidneys acting.

12th day. At 8 P. M. last evening this girl became very stupid; "did not know what to do with her head," as she expressed herself; she also became deaf, and had tinnitus aurium; this state continued until midnight, with occasional sleep, when she became "lighter," and afterwards slept well; the kidneys have acted, but there is no discharge from the bowels; she now presents a totally different appearance from that of yesterday; she is free from headache, her respiration is natural, the tension and fulness of belly have disappeared, but there is some slight epigastric tenderness; some of the maculæ have disappeared, and the remainder are of a lighter color. The sulphate of quina to be continued every fourth hour.

13th day. No stool; tongue clean and moist; pulse 84; belly natural slight epigastric tenderness. The quina to be omitted; broth and wine to be continued; to have a domestic enema.

14th day. Convalescent.

Since the first introduction into Europe of the Jesuits' bark, in 1649, the most celebrated writers extolled its efficacy in the treatment of various diseases, but especially in fevers; owing however to some cause or other, it fell into disuse, and it is probable that this was occasioned by the many failures which attended its administration; failures, which I now feel assured were owing principally to two causes; first, the bark not having been in sufficiently large doses; and secondly, the bark not having been always of the genuine kind. Its use was revived by the celebrated Sydenham, and after the time of that eminent man, its excellent qualities were fully established by Hoffman, De Haen, Pringle, Gleghorn, and other practitioners of eminence. And it is worthy of remark, that those who were most enthusiastic in praise of this remedy gave it in very large doses.

Dr. Clarke, a celebrated physician, who wrote on fever in the year 1770, was in the habit of prescribing bark in two drachm doses every two hours, and at the same time of exhibiting it by the rectum in the form of enema; he relates that on one occasion, in mixing a dose of bark for a patient, he discovered that the apothecary had by mistake put half an ounce of bark into each paper, instead of two drachms, which he had ordered; the patient had been taking this large dose for a considerable time, and got cured of a bad typhus in consequence. Now, when it is estimated that two pounds of good bark will yield about two hundred grains of sulphate of quina, it must be admitted that Dr. Clarke's treatment of typhus was not far short of the heroic method of the present day, introduced by Dr. Dundas. It is unnecessary to advert to the fact, that Dr. Clarke's patients were taking a different preparation, possessing, however, the same active base.

One great objection to its general use in this country, which may be advanced, is the high price of the salt; but should the remedy be found as efficacious in the practice of others as by Dr. Dundas and myself, I feel assured that its use, when applicable, would eventually constitute the true economy of our fever hospitals.

I have placed these cases and observations together in a very hurried, and,

therefore, imperfect manner, but the subject I considered to be of so much importance to the profession, as to induce me to take advantage of the earliest opportunity of bringing forward the results of my experience of this new treatment for typhus; and I do so in the hope, that this notice of the subject, however imperfect, may induce others to test the value of quina in this disease, in the large doses recommended.

[*Dublin Quar. Jour. Med. Aug.* 1852.]

XI.—*Speculations on the nature and treatment of Tubercular Consumption.*

In the January number for 1853 of the *Medical Examiner*, we read some suggestions thrown out by Dr. D. B. Phillips, Assistant Surgeon in the United States Navy, on the nature and treatment of Phthisis, with considerable satisfaction—so much so, that we are anxions that our readers should be made acquainted with Dr. P.'s views on this *questio vexata*. After apologising (which was unnecessary) for venturing to express his opinions, he proceeds to quote Mr. Simon's examination of tubercle, which go to demonstrate that the matter of tubercle is *identical with the matter of condensed fibrinous concretion*, Dr. Phillips continues: (*Ed.*)

May we not assume that the sum and substance of the tuberculous condition consists in a precipitation of unduly oxygenated fibrinous elements from the blood, from immediately exciting causes?

Let us see what arguments or facts can be adduced to sustain such an opinion. Mr. Simon, in treating of Cyanosis, uses the following language:

"There is one signal peculiarity which attends this chronic venous condition of the blood, and which I must not leave unmentioned. Not only in extreme cases of Cyanosis, but in all chronic diseases, where from any causes whatever there is defective arterialization of the blood, the patient enjoys one privilege. He is exempt (perhaps absolutely, but at least all but absolutely exempt) from tubercular diseases. And as the circumstances which interfere with due arterialization of the blood are of the most various kinds, (some of them acting merely mechanically) so we are justified in inferring from the exemption just specified, that the condition of the system in which tubercle is deposited is incompatible with venosity of the blood."

Now, there is one peculiarity of venous blood which alone can account for the singular fact stated above. Venous blood is much less prone than arterial to deposit its fibrin. This fact is demonstrated by post mortem examinations, which always (or nearly always) exhibit fibrinous concretions or deposits in the arteries and left side of the heart, whilst the veins and right side are free from them. Mr. Simon also proves the difference in the facility with which arteries and veins give up this element of their composition. He says, in the work before alluded to, "I have carried a single thread, by means of a very fine needle, transversely through the artery and vein of a dog, leaving it there so that it might cut the stream, and I have done this repeatedly, sometimes in the femoral vessels, sometimes with the carotid and jugular, sometimes with the aorta and cava. I have suffered the thread to remain during a period of from twelve to twenty-four hours. My experiments have given me, as a uniform result, that the arterial blood, with the utmost readiness, deposits its fibrin on the thread; the venous blood with the utmost reluctancy."

Thus, then, the only condition in which the system seems perfectly exempt

from the tuberculous deposit, is that in which, from want of proper arterialization, or oxidation, the blood refuses to part with its fibrin, or else does so with the greatest difficulty.

Again, in noticing the favorite locality of tubercle, we find it originally commencing on the lungs; here the blood is necessarily more highly oxygenated than in any other portion of the body, and here, per consequence, its first attack is made; and not only in the lungs, but by preference, in the superior lobes of the lungs. This arises from the fact, that as a general rule, the upper part of the chest is less frequently exercised than the lower, and the circulation in that particular portion becoming languid and stagnant, as a matter of course fibrin is there first effused. Comparatively speaking, consumption seldom attacks individuals whose occupations cause them to make free use of the muscles of the upper part of the thorax, whereas it is of common occurrence with those who pursue sedentary occupations, and whose respiration is carried on chiefly by the diaphragm.

It was formerly charged that tight lacing was a prolific cause of tubercle in females. Dr. J. M. Allen, Professor of Anatomy in the Pennsylvania College of Medicine, has informed the writer, that he has frequently examined cases where this evil habit had been carried to a very great excess; and that although the subjects, previous to death, presented every appearance of a scrofulous diathesis, yet, to his astonishment, instead of finding the lungs filled with tubercle, he has universally found them sound and healthy. He accounts for this upon the principle, that the stricture upon the diaphramatic portion of the chest, produced a necessarily increased action of the muscles upon the upper portion, and that through this means the circulation there was rendered more active, and tubercle warded off.

It is hoped that no one will infer, that the pernicious and abominable practice of tight lacing is for one moment advocated; far from it; but as it sometimes happens that one evil may point out a remedy for another, so in this instance, we are taught that one of the best prophylactics against anticipated consumption consists in moderate but frequent exercise of the arms and superior portion of the breast.

Formerly, fibrin was thought to constitute the great pabulum from which the healthy tissues of the body were nourished and repaired; now, however, it is generally conceded to be a retrograde condition of albumen, and of but little use in the economy. To those who still maintain the former opinion, a theory of the kind here advocated will probably appear idle and unsatisfactory; but to others, the views here presented, defective and imperfect as they are, may at least seem to claim some shadow of plausibility.

In speaking of the treatment of Phthisis, it is proposed only to hazard a few conjectures upon the influence of some of the most prominent remedies which have been, and still are, recommended. One of the most favored, and probably most effectual remedies in use is the Oleum Morrhuæ. This probably acts by furnishing fatty matter to unite with the oxygen of the blood, in the generation of animal heat, and thus neutralize any excess; preventing an undue accumulation of super-oxygenated fibrin, and preventing a consumption of muscular and nervous tissue; the iodine and bromine contained in it also acting beneficially, by promoting, softening, and the absorption of any concretions already formed.

The iodide of potassium and nitrate of potassa, with the other alkalies may also do good, by rendering the fibrin of the blood more soluble, and less liable to precipitation and coagulation; but in order to produce this effect, they should be given in large doses, so that some portion of them may be retained in the circulation, otherwise they will soon be eliminated and carried off by the kidneys, without exerting any salutary influence. Nutritious and

unirritating food, by building up the general system, serve also to lessen the quantity and improve in quality the fibrinous elements of the circulation, and by contributing tone and strength to the economy, enable it for a longer time to withstand the noxious influences of any and every kind. Removal to a warm climate may act in two ways: 1st, by creating revulsion of excitation from the lungs to the liver; next, by affording less oxygen than would be contained in an equal volume of air respired in a colder atmosphere.

Exercise, as a prophylactic, has been before mentioned; it is also highly efficacious as a remedial agent. It should be of such a kind as to call into action the muscles of the superior portion of the thorax, and in fact all that are in anywise, directly or indirectly concerned in respiration; and its beneficial influence is much enhanced by making it of such a nature as to be agreeable and pleasant instead of forced and obligatory. Riding on horseback has been most highly extolled by many, its action being probably due to the partial fulfilment of the above recommendation, by using the hands, arms and shoulders, in the government of the animal, with the reins, and also by improving digestion, and increasing the general strength. Cases are on record, where person, who despairing escape from so hopeless a malady, and perfectly reckless of consequences, have engaged in pursuits of the roughest, and apparently, most injurious nature, and who, after travelling on horseback or on foot, and performing real manual labor, have, to the joyful surprise of their friends, entirely recovered from their dangerous condition, and become both strong and hearty. Sailors, soldiers, and others, engaged in occupations of similar physical necessities, although much subject to inflammatory affections of the chest, are in general less prone to tubercle than those whose condition in life would apparently better protect them from its ravages.

There are many remedies prescribed and used of a palliative nature, but it is scarcely necessary to mention them in an article of this kind; the limits of the treatise, and time for its preparation, both forbid a more extended examination of the subject. The ideas here advanced have been hastily (perhaps too hastily) prepared and presented; but should they induce investigation, or cast any light, however small, upon a disease as obscure in its nature, as dangerous and fatal in its consequences, the highest hopes of the writer will be more than realized.

XII.—*Boston Society for Medical Improvement.*

We select from the *American Journal* the following interesting items of practical medicine, as laid before the Boston Medical Society, at some of their recent sittings.

By the way, this Society has already given to the Profession, through the Medical Journals, a large amount and a great variety of useful medical knowledge.

(*Ed. N. O. Med. and Surg. Jour.*

Ventral Histerocele.—Dr. Storer reported the case. June 2. Three weeks since Dr. S. visited Mrs. W., Pleasant street, who expected to be confined in a few weeks. Upon enquiry being made it was ascertained that the present is her third pregnancy. The first labor was tedious, and her child was stillborn. In her second pregnancy, she was delivered at the eighth month, and her child had been dead sufficiently long to have become offensive to the bystanders. Since her last delivery, which occurred about a year since, her health had been

poor. She is now languid, pallid, evidently much depressed; thinks she never can have a living child.

Upon examining her abdomen, Dr. S. noticed a very singular condition of the recti muscles, which were separated so extensively from each other, that there existed a peculiar sacculated appearance of the abdomen, which was strikingly marked upon any forward motion being made by the patient. This separation was observed along the whole extent of the linea alba. The projection between the recti muscles resembled that produced oftentimes by an enlarged ovary, and the feeling transmitted by examining the hernia was similar to that of an exaggerated fontanelle, and beneath the finger the number of the several extremities of the fœtus could be as well and clearly defined as if a rupture of the uterus existed.

The fœtal heart was feably pulsating. At the expiration of a week Dr. S. again saw the patient. She was exceedingly depressed, and remarked that she had not felt the motion of the child since Dr. S. examined her. Upon a repetition of the examination, no fœtal pulsation could be heard, and it was concluded that the child must be dead. Dr. Putnam, to whom Dr. S. had spoken of this, to him singular abdominal hernia, saw her a day or two afterwards.

Now, June 2, the patient is in labor. During each uterine contraction, the organ was thrust between the recti muscles with great force, and fearing that serious results might follow, Dr. S. applied a broad swathe around the abdomen. The labor continued only about two hours, and the patient did not suffer unusually. The child was *still*, and exhibited large patches upon its surface, where the cuticle was entirely denuded. The condition of the placenta, which was quite small, indurated throughout, and exhibiting upon its fœcal surface two large cysts, each of the size of a chestnut, filled with coagula, readily accounted for the death.

The patient does not remember that any similar condition of the abdomen existed in either of her former pregnancies; nor does she seem to have experienced any decided inconvenience during this last pregnancy, except during any forward motion. The mere stooping forward to wash the cups after a meal produced so much uneasiness that she had been obliged to desist from the operation for weeks previous to her delivery. She cannot recall any violent exertion by which the separation of the linea alba could have been induced.

Dr. S. added, that from never having previously met with a case of ventral hysterocele, and from the fact that those writers who refer to the subject point to individual cases, which have been published, he inferred its rare occurrence.

Recovery from Ascites after Tapping.—Dr. Hayward, Sen., reported the case. The patient was an intemperate man, whom Dr. H. saw for the first time in November last. He was then suffering from ascites. The existence of some organic disease was at that time supposed by Dr. H. The patient was tapped in December; sixteen quarts of serous fluid were evacuated. Five weeks subsequently eighteen quarts were taken from him. The operation was again performed four or five weeks afterwards, in March, when twenty quarts were drawn off. Since that time there has been no return of the affection, and Dr. H. is unable to detect any organic disease. Dr. Hayward remarked that this is the third case of recovery from ascitic affection after tapping, that has occurred in his own practice. In one of these cases, the patient had been under treatment for dyspepsia. On tapping her abdomen, a small quantity only of fluid was drawn off, but the affection did not recur. In the second case, twenty-two quarts of serous fluid were drawn off; no effusion followed. The patient

recovered entirely, and in the course of two or three years gave birth to a healthy child. Both mother and child are still living.

Dr. Perry mentioned two cases of recovery from this disease after tapping. In one, the patient was cured by hydriodate of potash, with compression, having been previously tapped three times. The other case was of a patient tapped three or four times by Dr. Bartlett of Roxbury, and who afterwards recovered. Dr. Perry added, that these two were, not improbably, cases of subacute peritonitis.

Early Menstruation.—Dr. Perry related an instance of menstruation occurring in a child four or five years of age; the child, to all appearance, healthy, although Dr. P. supposed her to be scrofulous. The tonsils were slightly enlarged, and she had once had inflammation of the eyes. She had menstruated five times at the regular intervals. Dr. P. recommended no treatment, but advised country air.

In answer to a query by Dr. Jackson, Dr. Perry stated that the mammæ were somewhat developed, but nothing peculiar was remarked about the pubes. The secretion had the usual appearance of the menstrual discharge, and continued for two or three days.

Remedy for the Nausea and Vomiting of Pregnancy.—Dr. Gould spoke of the application of chloroform to the epigastrium as having been found to afford prompt and permanent relief in four cases of the above affection. A few drops only were applied at a time.

Dr. Bigelow was of opinion that chloroform acted as a counter-irritant. He mentioned the case of a patient in whom vesication was produced by a few applications of this substance for pain in the side. It had not always been found to relieve pain. Dr. B. had tried the chloroform ointment spoken of at a recent meeting, by Dr. Channing, in various forms of neuralgia, and in a few cases had obtained temporary relief; in no instance was the relief permanent. Dr. B. doubted the alleged anodyne properties of chloroform, when applied to skin, as it cannot act through the cuticle.

Dr. Storer remarked, that although nausea and sickness in pregnancy may be temporarily relieved by this application, he was in doubt as to its affording permanent relief, the affection being of a sympathetic nature. He considered the cases reported as possibly exceptional.

Dr. Coale related a case in which the sickness came on when the patient rose from the horizontal posture. In this instance chloroform afforded immediate relief, lasting three to four hours, when it became necessary to renew the application.

[At the next subsequent meeting of the Society,

Dr. Alley reported a case of morning sickness in a patient seven months advanced in pregnancy. Relief was obtained by the external application of chloroform to the epigastrium. The remedy was applied four or five times in the day, for two successive days, with entire relief to the patient, producing little or no irritation upon the skin, a slight redness only being perceptible.

In answer to Dr. Storer's inquiry, whether the relief were permanent, Dr. A. replied, that four days had now elapsod since the disappearance of the symptom. No other counter irritant remedy was employed.

Dr. Snow asked Dr. Storer if he had employed, successfully, any other counter-irritant remedies in this affection.

Dr. Storer had tried the usual remedies of that class, but without expecting, or having found, permanent relief from them. He had frequently seen temporary relief follow from the employment of blisters, &c.]

Arsenic in Remittent Fever.—Dr. C. E. Ware related a case of the above disease, occurring in a lady who had resided for three years at the West, where she had, three years since, what was called bilious remittent fever. Dr. W. at first considered it a case of typhoid fever. On the fourth day, however, the disease assumed the character of remittent fever, and there was yellowness of the skin, with some tenderness of the hepatic region; no diarrhœa; a peculiar chill and reaction occurred every second day; the chill lasting for half an hour, and the febrile reaction for four or five hours. Dr. Jackson saw the patient on the tenth day, and suggested arsenic, in the dose of six drops of Fowler's solution three times a day. The first attack, after commencing this remedy, took place on the subsequent day, and was quite severe. Twelve drops were now given every five hours. The patient suffered no farther attacks, and became at once convalescent.

Accidental Salivation.—Dr. Coale mentioned a case of this affection, in which periodical exacerbations took place twice in twenty-four hours, viz., at one in the morning, and at the same hour in the afternoon. Quinine was given with success. The patient had not had intermittent fever, but had suffered from fever in the East.

Dr. Durkee stated, that in the above case, which had been sent to him by Dr. Coale, the occurrence of salivation was from the application of an ointment made of ℥ v of white precipitate to ʒ iij of lard. This was applied pretty freely to the throat and lower part of the face, which parts were the seat of psoriasis guttata, and salivation followed on the fifth day. This was the first case of salivation produced by this remedy that had fallen under Dr. Durkee's notice.

Dr. Coale mentioned another case of salivation produced by the application of the "black wash" to the throat.

July 12.—*Almost Complete Occlusion of the Vagina.*—Reported by Doctor Hayward, Sen. Dr. H stated that he had recently operated in a case of this nature. The patient had always menstruated regularly, but with pain. She had no suspicion of her condition until marriage, which took place about a year since, when sexual connection was found impracticable. On examination, a septum was found at some considerable distance from the external orifice, with an opening in it so small as only to admit, and that with difficulty, a small probe. A director was afterwards introduced, and then an attempt was made to carry in a bistoury, which was finally successful. A catheter was now passed into the urethra, and the septum incised in all directions, except towards the bladder. After this, Dr. H. was enabled to introduce the finger, and to pass it completely around the os tincæ.

This is the fifth case of occlusion of the vagina that has occurred in his own practice. Two of these were cases of imperforate hymen. The third was a case of congenital malformation of the vagina, successfully treated by an operation. Another was one of occlusion produced by sloughing, after instrumental labor. This last was also relieved by an operation, the patient having since had a living child. In the cases above reported, the septum was unusually firm, cutting like tendon. On examination, six weeks after the operation, it was found that it had afforded complete relief.

Unusual quantity of Liquor Amnii; the Placenta and Fœtus both healthy in appearance.—Reported by Dr. Storer. The patient was in her third pregnancy. When in her first, she was enormously large, and was delivered of a dead child in the sixth month, the amniotic fluid being in great abundance. In her

second pregnancy, the abdomen was also greatly distended, and the labor came on in the eighth month; the child dead, as before. In the present case, the labor came on in the eighth month; there was great distension of the abdomen, and the child, as in the two former instances, was stillborn. A peculiarity of this case was, the healthy appearance of the child and of the placenta, in each instance; a condition not usual in cases where the liquor amnii is in excess.

Early Menstruation.—Dr. Minot reported the case of a woman, twenty-three years of age, who had recently consulted him for headache, having been bled one year before for the same trouble. The patient was run over by a wagon when 9 years old, since which she has menstruated regularly, the function being always attended with much pain.

Obstinate Diarrhœa preceding and following Labor.—The case was reported by Dr. Storer. The patient was first seen by Dr. S. ten days ago. She had had diarrhœa for a fortnight, and expected to be confined in one month. On the second day after his visit, she was taken with pains resembling those of labor, and at the end of the second day labor came on, it being the eighth month of her pregnancy. On the following day she had nine discharges from the bowels. Lead, opium and catechu were given, without effect. Finally, sulphate of copper, in the dose of one sixth of a grain, combined with ten or twelve drops of laudanum, was administered. The physician feared a fatal result. The patient has, however, been improving for two days past, having had but three discharges in the last 24 hours.

26th. Dr. Storer reported his patient entirely recovered.

Deafness produced by Quinine.—The case was reported by Dr. Hayward, Sen. Twelve grains of the sulphate of quinine were administered, in the space of twenty-four hours, to a patient who had been afflicted with rheumatism. In forty-eight hours after commencing its exhibition, he complained of deafness. There was no dizziness. No tinnitus aurium. In twelve hours after having abandoned the use of the medicine, hearing was entirely restored. Dr. H. said he had frequently given quinine in much larger doses, *e. g.*, two scruples and one drachm in the course of the day, but had never before noticed the above effect. The quinine in this case was given combined with gentian. No other symptoms.

July 26.—*Microscopic Anatomy of the Fœtus.*—Dr. Durkee exhibited several preparations from a fœtal subject, about five or six months old, which only weighed twenty-six ounces, and which he had injected with colored size; the blood-vessels of both crystalline lenses were injected, and their branches could be seen radiating from a comparatively large trunk, and traversing the lens in every direction, until they were lost near its periphery. In mounting these two specimens, the epithelium between the lens and its capsule had not been disturbed, but could be seen apparently in its normal condition. The membrana pupillaris were exhibited, showing the beautiful arrangement of its fibres, and the ciliary arteries, with their branches and anastomosing extremities injected.

The pupillary membrane, examined *in situ*, through the cornea, appeared to be about the sixth of an inch across from point to point of its border, and to consist of an entire web of fibres; but upon removing it, and placing it on a glass slide, a narrow aperture or slit, as if made with the point of a lancet, cutting through its central portion, could be seen by the naked eye, and was about

a line in length. In looking at the membrane through the microscope, an arterial branch which has been injected may be seen running parellel to each lip of the central opening just mentioned, and sending off at right angles several exceedingly minute twigs, which also divide and subdivide, until they finally inosculate and form a chain of loops, and thus the central aperture appears to be made. A somewhat similar inosculation of blood-vessels is seen in the border of the sclerotica at its junction with the cornea, and also in that part of the choroid membrane surrounding the optic nerve as it penetrates the sclerotic coat in the back part of the eye. In the two latter instances, however, the openings are circular, while that in the pupillary membrane is a mere slit.

Judging from the specimens now exhibited, it would seem that the pupillary membrane must be formed antecedent to the formation of the iris, as scarcely a rudiment of the latter can be found; and how it can be said that the former arises from the latter, it is quite difficult to understand; yet Todd and Bowman appear to be of that opinion.

Dr. S. also exhibited several teeth taken from the same subject. They were extremely small, some of them not so large as a common flaxseed, and they consisted of mere pulp; yet their cell structure could be seen and the nutrient blood-vessels were perfectly injected, so that the microscope brought them distinctly into view. A large number of hairs, with their related follicles and glands, removed from the eyelids of the same fœtus, were also examined by the gentlemen present.

Puerperal Convulsions. Death of Patient undelivered.—Doctor Storer was called in consultation with another practitioner, at a quarter past ten o'clock at night, July 19, to a patient in puerperal convulsions. She was attacked at six in the morning, and had had repetitions of the attacks during the entire day, at longer or shorter intervals; about half an hour generally intervening between them; she had been bled at two o'clock in the afternoon, and again at six, about 20 ounces each time, but still her convulsions continued.

The patient, a woman about twenty years of age and at her full period of pregnancy, had the aspect of approaching dissolution; she was perfectly unconscious; the surface of her body was cold and damp; the pulse exceedingly feeble. While examining her she had a terrific convulsion.

Upon examination the Doctor found the os uteri slightly open, just allowing the index finger to pass and to ascertain that a head presented. He advised that premature labor be attempted; there appeared but little chance that it could be accomplished, but no other alternative presented itself. The membranes were readily ruptured.

Prevented by unavoidable professional engagements from remaining with the woman, Dr. Storer requested the attending physician to watch her through the night, and should she die, as it appeared probable she would, undelivered, to open the abdomen immediately and remove the fœtus.

Doctor Storer was informed the next morning by the medical gentleman in attendance, that the convulsions continued to recur, after he left the patient, about every twenty minutes, until a little after 12 o'clock, when she died, a few minutes after the cessation of a paroxysm.

Dr. ——— immediately opened the abdomen of his patient, and removed a child, with its extremities so contracted and rigid as to be straightened only by the application of a considerable amount of force; and besides this, its surface was livid throughout. Examining again, he removed a second fœtus, somewhat less rigid than the former.

Doctor Storer stated, that in this case, as well as in that reported by him on the evening of June 14th, he supposed the child would most probably be dead, inasmuch as the convulsions had existed so long a period previous to an attempt being made to produce delivery; but he requested that the abdomen of the woman might be opened as soon as she ceased to breathe, as the living fœtus has been extracted after the death of the convulsed mother.

Speaking of the treatment of puerperal convulsions, Colombat observes (American edition, page 646): "Should the mother have breathed her last during the progress of the labor, the Cæsarian operation ought to be performed, notwithstanding the very slight chance of success there may be in such an attempt to rescue the life of the child."

XIII.—*Death resulting from a Biliary Calculus lodged in the Hepatic Duct.*

BY DR. TRACY E. WALLER.

The deceased was an industrious, stirring man, the father of a large family and highly respected. He had lived until recently in the lower part of Pennsylvania and the adjoining part of Maryland; a decidedly bilious district. He was fifty-seven years of age, and for many years, according to the statement of his family, had been subject to severe attacks of bilious colic. These attacks, I judge from the description given of them by his wife, were probably icterus calculosus, or similar to the one which caused his death. There was undoubtedly chronic disorder of the biliary organs, at least of the liver, and he had been troubled very much a long time with indigestion. A few days previous to his last attack he had been exposed to inclement weather, and complained of being unwell. I was sent for on the night of February 24th, 1850, and found him in great pain and suffering; this was mostly in the right epigastrium, though there was some pain and tenderness in the abdomen. As I had never attended him before, I made enquiry respecting his previous health, etc, and after an examination of his case, concluded there must be acute disease of the liver, and probably inflammation of the bowels and their investing membrane. My treatment of course was antiphlogistic. The next morning, February 26th, I was engaged in an obstetric case, and sent for Dr. Salsbury, of Dover, who had been his physician for some time previous. He visited him about nine o'clock, and found him in a sinking condition. At 11 o'clock he expired.

I obtained permission from his family to make a post mortem examination, and about twenty-four hours after death, with the assistance of my friend, Dr. Salsbury, the autopsy was made. I shall briefly describe the post mortem appearances in the order of dissection.

THORAX. Nearly the whole of the right lung was hepatized; the patient had an attack of pleuro pneumonia about fifteen years since, followed by an abscess, which accounts for the condition of the lung; the left lung and pleura were normal; the heart contained a small quantity of serum, and presented marks of recent slight inflammation in the right auricle; otherwise it was normal.

ABDOMEN. The stomach was nearly normal, with some inflammation near the pylorus. The duodenum had more than half its surface inflamed; the small intestines and peritoneum in the same condition, and covered in many places with yellow bile; the pancreas inflamed and adhered; there were several adhesions to the folds of the peritoneum; the lower half of the right and inferior lobes of the liver was much inflamed and indurated; the hepatic duct was highly inflamed, distended and softened. It was ruptured about one inch from the liver; and just below the opening contained an ovoid biliary calculus, three fourths of an inch in length and a fraction over a half inch in diameter. It must have been lodged there for several days, as by the lymph, etc., thrown out in consequence of the inflammation, it was completely imbedded in the duct; this at once explained the presence of bile in the cavity of the abdomen, which had been quite unaccountable before we came to the duct. It also enabled us better to understand the reason of the great extent of inflammation; the bile was extensively diffused over the bowels and parieties of the abdomen, and the fascia along the linea alba had been tinged by it of a yellow color.

This is probably a new case. Watson records something like it as regards inflammation. He says: "Sometimes the gall-stone makes its way by ulceratioa, through

the contiguous structures, and so is discharged outwardly or into the bowels." In this case there could have been no remedy; the stone completely blocked up the passage of bile from the liver, and if ulceration of the duct had not taken place, inflammation, terminating in death, would have been the result. Watson has so well and fully described the various effects on the system of the passage of gall-s ones, that I prefer referring you to his work to detailing them here; as my objects in this communication are chiefly to elicit information respecting the main feature in my case, namely, the lodgment of a calculus in the gall duct; and to suggest farther inquiry into the primary causes of biliary concretions.

This, it appears to me, is a question of great importance, and would give scope for extensive research and experience. Will not some fellow of the college undertake the investigation?

(*Philadelphia Medical and Surgical Journal.*)

XIV.—*Vinegar as a Remedy for Madness.*

Dr. Andouard makes the following remarks on this subject in the "*Comptes Rendus.*"

M. Baumes reported the following fact, fifty years ago, to the Academy of Medicine at Montpelier, of which institution he was secretary, and one of its founders.

A sow, having been bitten by a dog, became mad; the owner, so far from destroying her, confined her in a pen, and through a hole in the boards, supplied her with vinegar; the sow drank of it and got well.

In support of this fact, we may quote from the Dictionary of Medical Sciences, in the article *Rage*, where it is said that "a man with the first symptom of madness drank freely of vinegar and was cured."

To these two facts I will only add here, that Pliny remarks, that swallows' nests, steeped in vinegar, are good for madness; this author is prolific in receipts for madness, and I quote this because of the vinegar.

Is this product of vinegar really efficacious in madness? I mention these cases in order to draw the attention of observers to the facts.

Vinegar, in order to avoid the repugnance which the patient feels for liquids, may be exhibited in a solid form. The most simple and economical mode is to soak bread in vinegar. This avoids all repugnance. Bread has nothing connected with it calculated to irritate the sufferer. (*Ibid.*)

XV.—*Luxation of the Sacrum.*

An instance of this very rare accident is reported by M. Foucher in the Revue Medico-Chirurgicale, in the case of a man who endeavored to commit suicide by throwing himself beneath the wheels of a heavily loaded wagon. After death, the chief appearance was a dislocation of the sacrum forwards into the cavity of the pelvis. The ilia were also fractured. Similar cases are on record; one, for instance, in which the accident occurred from the falling of a sack of wheat upon the pelvis, and another was published by M. Laugier, in 1850. In some other examples reported, the luxation seems to have been the result of disease. (*Am. Jour. Med. Scien.*)

Part Third.

REVIEWS AND NOTICES OF NEW WORKS.

I.—*Midwifery and the Diseases of Women. A Descriptive and Practical Work.* By Joel Shew, M. D.

Children, their Diseases and Management. By Joel Shew, M. D. Author of various works on Hydropathy.

Wythes' Pocket Dose Book. Author of "The Microscopist," etc.

The writer of the two volumes which stand first in order, is a strong advocate of the water treatment, recommending it somewhat indiscriminately in the multifarious diseases to which women and children are subject.

Upon any other grounds than the special advocacy of Hydropathy, it were difficult to imagine what motive could have induced Dr. Shew to put forth these two volumes; so many elaborate as well as abridged works upon the subjects treated of being already at command, and upon which the seal of medical approbation has been placed by common consent. It will not be argued that in no instance has the author ventured upon an unbeaten course, or stepped aside from principles, which few if any medical men for the last quarter of a century have ventured to gainsay, and the salutary effect of which upon individuals and upon widely extended communities, have been hailed with the joyful acclamations of thousands in every rank and sphere of life. Nor will it be argued that in such dissent upon particular points has the

philosophy of the author failed to succumb to genuine philanthropy, and an earnest desire to rid humanity of one of its direst calamities—we refer to small-pox. To suppose an individual opposed to vaccination, and at the same time opposed to small-pox, would be an anomaly in terms, since by vaccination we employ the greatest safeguard and preventive to the accession of that loathsome disease.

In the XVIII. Letter, upon diseases of women, we find the subject of vaccination disposed of in the following language: "I am opposed to vaccination at all times. It is better, I believe, to live carefully and consistently in all respects, and trust nature to the results. There are many objections to vaccination, which I need not here mention. Pregnant women especially, who are necessarily, in the present state of things, more than others, subject to inflammatory diseases, and less liable, when attacked by acute disease, to recover therefrom, should not be vaccinated."

In raising objections to vaccination during pregnancy, Dr. Shew is not alone; of this number also is Prof. Meigs, who strongly condemns the practice, at the same time acknowledging that small-pox is exceedingly pernicious to pregnant women; but if at times great distress and serious consequences ensue from vaccination during this time, it is equally true that still more fearful and alarming ones might await the party exposed to contagion, without the conservative influence of vaccination; its paramount importance has long since been acknowledged—settled—beyond disputation; we therefore pass on again to dissent from the views of our author, with regard to the employment of chloroform in labor; and although he does not stand, like Adam's recollection of the fall—alone—in his views, we must assign him the minority side of the question, in his opposition to the use of chloroform in labor. "Pain is a natural condition of the puerperal state," it is remarked. Pain is also a natural, a constant accompaniment of external injury,—of surgical operations,—and yet how eagerly do men and women embrace the glorious opportunity vouchsafed to them by the introduction of anæsthetic agents, to free them from the thraldom of racking pain, and often, *whilst cheated of their fair proportions*, lose the senses in some sweet oblivious dream.

Is it because the pain of child-birth is a *natural condition* that we are to avoid anæsthesia? If so, its efficacy having been fully and fairly proven, we are to be so *un*natural as to discard one of the most valuable agents of modern times, and in our backward step, let suffering human-

ity groan under the severity of the knife, howsoever graceful and dexterous the operator.

In the Letter upon the hygeine of nursing, are found some useful suggestions, particularly for mothers, who, abounding in the whims and vagaries of the age, sometimes seem to fancy themselves automatons, and their offspring as too tender sapling for the wind of heaven to light upon; the too common fashion of transferring the duties of the mother to the wet-nurse, is justly censured.

"I would have every one of you to nnderstand that the health of the unnatural mother, who wil not nurse her child, suffers from her not fulfilling the order of nature in giving suck. Her system must inevitably get harm from not allowing it to go through the period of lactation naturally. Her life of dissipation, too, is poorly calculated to contribute to health, compared with staying at home and fulfilling the order of nature—as God designed she should do. But she gets her reward even here; there is no period of woman's lifo in which she has so great enjoyment, such perfect physical health, as when she is nursing the offspring of her own blood. Her shattered nerves and broken health are poor pay for the so-called enjoyments of a dissipated life."

With some plain dietetic rules, which are more frequently given than profitably received, Dr. Shew leaves the nursery for other branches of his subject.

Over-eating and drinking are doubtless fruitful sources of disease, and our author with propriety recommends, in many cases, abstinence instead of medication, and free ablutions with cold or tepid water; bathing and vegetable diet have been found by the writer highly valuable in cases of sterility. The following are some of the cases taken from his note-book:

"A few months since one of my patients, a gentleman of this city, informed me that a lady relative of his, with whom I also am acquainted, had been married about eight years, remaining, much to her sorrow, childless. She experienced frequent miscarriages, accompanied with much general debility. About two years since the subject of water-treatment came under her observation. She at once commenced a course of bathing, with due attention to regimen, etc. She became much improved, and in due time bore a healthy, well-formed child. She attributed this most desirable result to the effects of water in restoring her general health.

Another lady remained without offspring fifteen years after marriage. Her husband, in building a new house since the introduction of Croton water into this city erected also convenient bathing fixtures; the lady practised perseveringly a course of bathing and became much improved in her bodily health. She too was at length blessed with offspring, and as she believed, in consequeuce of the course she had pursued in restoring her general health.

I have known and heard of numbers of cases in which, by a prudent course of bathing, exercise, etc., the use of a plain and unstimulating diet, and the observing of a proper temperance in the marital privileges, persons have borne children when most earnestly and by a great variety of means that object had been sought in vain. Yet be it ever remembered, that little is to be expected from either water or diet without strict temperance in all things."

The vegetable diet, so called, is very favorable to reproduction in the human species. See how Ireland, a small island comparatively, sends its inhabitants all over Great Britain and the wide extent of the United States. Yet the mass of the Irish people, as every one knows, subsist while in their own country mainly on potatoes and sour milk, or a diet equally simple. The celebrated Dr. Cheyne remarked, from much experience, that the total milk and seed diet [meaning by seed farinaceous substances generally] persevered in for two years, was in almost all cases sufficient to enable those who are barren to become pregnant by the appropriate means.

Fortify and invigorate the general health, observing at the same time the strictest temperance in all things. These are the means by which to overcome that, to many, unfortunate state, barrenness.

In the *Management of Labor*, we find nothing new, either before or after delivery. Indeed, after carefully consulting Ramsbottom, Blundell, Denman, Dewees, and others, the subject will be found so well discussed, as to leave little for the reader to gain from any manual. It was evidently the design of Dr. Shew to render the little volume *practical*, and the several parts of it easy of solution; with this view he has always been plain in his mode of expression—indeed much more plain than forcible. It is equally obvious that the book is intended to enforce a special kind of treatment—that of water; and hence the general medical reader is in danger of *saturation* from a too great abundance of the limpid element which flows in upon him on all sides; hydropathists will find in the author a firm believer, and a modest expounder of their views—qualities which frequently are cast aside long before pen is committed to paper.

We will now turn to the volume on Children, their Diseases and Management. The alarming mortality in the stages of early life, as shown by mortuary returns in different countries and cities, is sufficient to awaken investigation, and stimulate to efforts for its amelioration. According to the annual report of the Registrar General of births, deaths and marriages in England, presented to Parliament, for the years ending June 30th, 1838, and June 30th, 1839, it appeared that more than one third of the total number of deaths occurred *under two years of age*,

the exact proportion being 342.54 per 1000 of the deaths registered. Taking the city of Manchester, England, alone, the picture is still more frightful, for out of every 1000 deaths of males, 496 were of children under *three years.* Since the period referred to, it is believed that the rate of mortality has considerably diminished.

In our own country, statistics upon this subject have not been so generally made; particular sections only having very reliable and definite data. In the city of New York, in 1847, nearly one half of the whole mortality occurred amongst children under five years of age. It is, in the opinion of Shew, mainly, though not entirely, through our ignorance and mismanagement in regard to fulfilling the laws of Divine Providence, that we have such a result, and the means to be employed for its removal almost entirely within man's control. It seems to be with the view of disseminating knowledge on the suhject of health, and "as a guide for families and physicians," that the present volume was undertaken.

Judging from the tenor of the second chapter, we should imagine, that to many *spinster* members of families much that is contained in it will be most acceptable, the subject of marriage, especially those which occur in early life, receiving something more than doubtful approval. Were we entirely devoted to the selection of passages for the *dissemination of useful knowledge* in passing through the pages of Dr. Shew, we should pass over the present one in silence; but as his opinions are not rendered *exclusively for family use*, we may venture to insert his own words: "On the whole, then, it will be observed that I am in favor of what would be termed early marriages. These, it must be admitted, are sometimes precocious, and too early formed; but as a general rule, I regard it better, if the parties are in suitable circumstances, have good health, and are inclined to this step, as most persons under such auspices are, to marry at a time that would generally be regarded as early. In so doing, the health and happiness and well being of both parents and children will, I am very confident, be ultimately much enhanced."

The evil consequences resulting from precocious unions are not confined to the parents, who, in addition to the probability of shortening their lives, and the female especially exchanging the ruddy bloom of youth and health, and the elasticity and vigor of mind and body, for faded beauty and premature decay, entail upon their offspring, in numerous cases, an enfeebled body, perhaps "sent before its time into this breathing world," and with a mind as fragile as the body.

The injurious consequences of early marriages being known to all,

and experienced by many, we are at a loss to imagine by what process of reasoning the author has so confidently arrived at the opinion that early marriages will increase the "health and happiness" of those who embark in it, and that the issue of such marriages will possess greater vigor; but as this may have been intended for *family use*, they are entitled to the full benefit of the act, and all the joy which Dr. Shew can bestow upon them.

The treatment recommended for the diseases of children, is but the counterpart of that which is sought to be enforced in the diseases of women, viz: cold water.

Much space is given in the present volume to Diarrhœa and Dysentery. To subdue the inflammatory action of the latter disease, it is affirmed, that the most powerful and efficient mode is, to employ that *simple, cheap and universal*" remedy—cold water; by its application, fever and pain are both mitigated, and if thorough work be made in cooling the bowels by the "cold hip-bath," pain and tenesmus will cease, and tormina and writhing will quickly pass away upon the child being held in a "tub of cold water." Other antiphlogistic modes of treatment are said to be inferior to this, and leeches, opium and calomel, recommended by Sydenham, Elliotson, Dewees, Watson, and others, as vastly less efficacious. Having said this much in favor of the water treatment, (and none will deny that it is a most valuable and powerful agent in surgery, as well as in the treatment of many medical cases, especially as an auxiliary) we are somewhat surprised to find that the author cannot speak more encouragingly of its result, upon which certainty to some extent, in all cases, we must rely. Upon this head it is remarked, "Whether the patient can *live*, is another question; but if death even must be the result in any given case, it is certainly very desirable that we make this death as easy as may be. This every parent can well appreciate."

A similar course is recommended in the treatment of Cholera Infantum; for in this disease, "as in Dysentery, the great thing is to prevent all undue heat." It is with a view of preventing the rapid *abstraction* of heat, that the *warm* bath has been suggested, upon good authority, in this fatal disease, which, under any system of medication, it must be admitted, is exceedingly intractable.

As in other infantile diseases, so in Croup, which is regarded as "the most rapid and severe of all inflammatory diseases," water "constitutes the best of all known methods" of cure." "I do not know," remarks Dr. Shew, "in the whole range of medical experience, any thing which is more calculated to make a man thankful, than to be possessed

of a knowledge of so good a remedy as cold water in this disease." Had Dr. Shew placed before us the success attendant upon the water cure, as well as that attendant upon other modes of treatment, in a given number of cases of Croup, which must certainly be included in the "whole range of medical experience," he would have placed us under many obligations for his assiduity, and he might also have placed a motive before the reader to become a convert to his doctrine; in this, however, he might have been restrained from prudential reasons.

Before closing our rather hasty remarks upon Dr. Shew's volumes, we are glad to have met upon ground which will be undisputed, and upon which we may *wash*, and hope to be clean.

In the treatment of Scarlatina, the writer has given full play to his aquatic propensities, and writes under this head: "Use cold water fearlessly in the way of ablutions, pourings, wet sheets, compresses, clysters, drinks, etc., and fear not."

Hoping that Dr. Shew may cure all his patients with water within and without, we will pursue the subject no further.

The Physician's Pocket Dose and Symptom Book will sometimes, as one of reference, be found useful, pointing out the therapeutic effect of many articles—those most ordinarily in use—of the materia medica, and at the same time indicating the dose for adults and the substances with which they are incompatible. A much better repository, for all practical purposes, for the information contained in books of this character, is the head of the practitioner, so that it may always be at command; besides, the effect and dose of medicines is the appropriate study of its followers, when in incipient pupilage; its more important use is in readily showing what substances are incompatible, a circumstance sometimes lost sight of in prescribing.

The little book is of such convenient size, that for those whose love for globules is not too exclusive, the whole might be taken at *few doses* It is worth the having, and can be found at T. L. White's, 105 Canal street.

G. T. B.

New Orleans, January 25, 1853.

II.—*Operative Surgery Illustrated: Containing more than* 1900 *Engravings, including* 200 *original, and* 50 *Colored Drawings. With Explanatory Text.* By R. U. Piper, M. D. Also a Chapter by Bigelow, on the use of Ether in Surgery. Boston, Ticknor, Reid & Fields. 1852.

Well executed sketches and faithful pictures will greatly assist, it must be admitted, a better understanding of most of the surgical operations now made; but the study of plates and drawings, however accurate and well finished, can no more make a good Surgeon, than the study and contemplation of the riggings of a man of war can an expert sailor or seaman. The eye may assist the hand; but the latter must be trained to the use of the knife, before an operation can be executed with skill, safety and dexterity.

Besides numerous engravings, drawings, etc., the work gives a brief but clear description of the several important operations that may fall in the path of the Surgical Practitioner. Without such descriptions, the engravings, not by any means well executed, could only serve to confound the student and embarrass the operator.

We have a decided objection to the size of the book; and unless the Profession judges its merits by its weight, it will be a long time before the first edition is exhausted. In a word, nearly every thing attempted in this work, has been much better executed in books which treat of Surgery and Surgical Operations, and we cannot for the life of us see in what way the Profession is to be benefitted by such publications. The printing and paper are excellent, and on this account we find no fault with the publisher. If the work does not prove useful to the Profession, it may adorn a library, and we therefore advise our readers to purchase it of J. C. Morgan, Exchange Place, New Orleans.

III.—*Letters on Syphilis.* By Ph. Ricord, Chirurgien de l'Hospital du Midi, Chirurgien-Consultant du Dispensaire de Salubrité Publique, Membre de l'Academie Nationale de Medecin, de la Société de Chirurgie, etc., ect.

The name of Ricord is identified with the progress of Syphiliography all over the civilized world. By his ingenious and varied experiments on the living subject with the venereal virus, he has cleared up many

doubtful points; established principles for our guidance, and taught us something definite as to the nature and action of this subtle poison. By his labors he has immortalized his name, and received the homage which he so well deserves, of all the votaries of Venus from the four quarters of the globe.

These "Letters" were originally addressed to M. Latour, *Redacteur en Chief* of the Union Medicale of Paris, and are written in that easy, fluent style so characteristic of the genius of M. Ricord. They will be found full of practical instruction and elucidation of one of the most deeply interesting subjects of the day—Syphilis and its kindred affections.

The effects of syphilitic diseases upon society—upon mankind, and upon posterity, are little less grave than phthisis pulmonalis; since both have a wide-spread influence—both may be entailed upon succeeding generations; both may be propagated from father to son, and from the mother to the daughter; both may contaminate the blood ere it has acquired the aptitude for functional purposes, and become blended and incorporated into the very tissues of the body, there to lurk until some fortuitous circumstance, or favorable moment, for them to develop their specific nature. We are not prepared to endorse all of Mr. Wilson's views, in regard to the incurability of syphilis, when once fully introduced into the system; but we are convinced of the subtle nature of the poison, and the extreme difficulty with which it may be expelled, particularly in certain constitutions.

The work before us contains a long and well written Introduction, addressed to M. Ricord by M. Latour, the able editor of the *Union Medicale*, in which these "Letters" originally appeared. Speaking of what the French call *clandestine* prostitution, M. Latour addressed Ricord in the following glowing and pertinent strain:

"Two facts which are equally important, but between which we can perceive no connection, strike the attention of all who are at this time studying syphilis in its relation to public hygiene.

On the one hand—and I speak especially of civilians, for it appears that in the army the case is different, since the adoption of certain measures in 1842—the number of syphilitic men does not sensibly diminish.

On the other hand, the number of diseased prostitutes has been considerably reduced; to such a degree, indeed, that according to an official communication which I recently received from the learned M. Trébuchet, chief of the sanitary bureau at the prefecture of police, the dispensary contains at present scarcely one diseased girl in four hundred.

Whence arises this apparently contradictory result—this decrease of the disease at its very source, while the number of syphilitics is now almost equal to those which formerly existed?

This circumstance, we are everywhere assured, is attributable to the fact that the sources of syphilis have been shifted. The disease, so happily checked in public prostitution by the judicious and efficacious measures adopted by the administration, has tended to concentrate itself entirely in that continually augmenting class of the female population which practice clandestine prostitution, against which the police, believing itself to possess no control over it, leaves the public without protection.

Who is better adapted than yourself, my dear friend, with so many opportunities for observation in a vast nosocomical clinique, and in an immense civil practice, to inform us how much truth there may be in the assertion?

If all that I have stated be true, is it not for the interest of public morals and health to enlarge the definition of prostitution?

Is there not ground for calling the most serious attention of the vigilant magistrates of the city to the necessity of reaching this prostitution, which is a thousand times more dangerous than that which is legalized, inasmuch as it is more attractive? By this means syphilis is contracted and extensively propagated with frightful rapidity.

This prostitution is called *clandestine*—a singular term, dear friend, to designate that which is exhibited in the galleries of the theatres, in the public balls, in all those places of pleasure, in fact, which are at present no more than immense brothels! What! does the police think it has the right of imprisoning in Saint Lazarre, without process and without judgment, an unfortunate girl, inscribed upon its books, who may in some point have contravened the severe regulations to which she is subjected, and thus to disarm the poor girl; while a cohort of women are left with impunity to compromise the fortune and the health of young men! What! has the police the right to enter at all hours those houses where imbeciles and dupes give themselves up to the chances of dice, while it pauses undecided upon the threshold of a courtesan, who poisons ten or twelve lovers a day! What, then, is prostitution, if it is not 'the notorious commerce of one's charms?' Some one says there must be provocation upon the public street. That is a bad test of prostitution. The best frequented houses take good care to give no direct provocation; else would they be at once deprived of their prudent and wealthy custom; and yet the police holds them none the less under its beneficent supervision. And what is the tendency of those strangely lascivious dances at the balls of Asnieres and Mabille—of those nights at the opera, where provocation lurks in every thing—in the costume, in the gestures, and in the voice—and of those nocturnal orgies in the private saloons of some famous cabarets, the description of which casts into the shade the frightful picture of the manners of the Romans at the decline of the Empire?

What pen is more competent than your own, my dear friend, to describe the

ravages of this clandestine prostitution, the misfortunes it occasions, and the troubles it excites in families? Who is better adapted than yourself to trace the syphilitic poison from its present numerous sources, insinuating itself into the ranks of the best classes of society, infecting the purest and chastest spouse, rendering her barren, or unfit to carry to term the fruit of conception? Who better than yourself can trace the affecting history of him who has inherited syphilis—the subject, I know, of your most earnest researches? Who, in fine, is better adapted than yourself to make known to the administration the only sure and efficacious prophylaxy against the disease—the one which must bo entrusted to medical science?"

We fear the preceding picture of the ravages of syphilis through the means of *clandestine* prostitution, are not restricted exclusively to the great and dissipated capital of France. America, too, contains more than one such within her borders. Is New York, Philadelphia, Cincinnati, not to mention others, less amenable to the charge of secret prostitution than gay and fashionable Paris? Are we so much better than our trans-Atlantic neighbors, that the evil here spoken of needs no corrective? If it be less in magnitude, it must surely be commensurate in its disastrous effects in individual cases.

Having given a rapid sketch of the state of syphilography at the time he entered the walls of the *Hospital du Midi*, M. Ricord proceeds to remark as follows:

"That which was the most of all necessary was to investigate the cause of syphilis.

Had it a special virus? Or, were venereal accidents the result of a common cause?

For this research and this study, two methods of observation presented themselves to my mind.

The first was the pure and simple observation of phenomena; a method practised by our predecessors, but which had conducted them to such contrary opinions. This method was followed by Devergie, and is not unlike that adopted by Vigaroux, by Blegny, etc., in their report, for example, of the case of three officers, all of whom having connection with the same young girl affected with a discharge, became infected; the first with a urethritis, the second with a chancre, and the third with warts. It is true that Devergie failed to afford information on one small point, that of the precise state of the young girl, whom he did not examine with the speculum.

Evidently, this mode of investigation was worn out, and could conduct only to vagueness and confusion.

The second method was more satisfactory to my mind; it was besides more in accordance with the demands of modern science; it seemed to me to open

a sure way to the study of the cause of syphilis, and of necessity to lead to incontestible results—I speak of experiment.

I laid down for myself the following conditions:

To obtain syphilitic virus from a known source.

To place it upon a region of the body open to observation.

To note its effects.

You see these conditions could be fulfilled by experiment alone.

But experiment had already been interrogated, and by it people had arrived at contradictory conclusions. When John Hunter said yes, Caron, Bru, Jourdan, Devergie, and M. Desruelles, said no. What was the basis of affirmations so opposite, when the same method of investigation had been employed? I did not then know—I have since learned. What my reason then told me was, that a series of rigorous and well-conducted experiments must lead to precise results; and the dissensions of experimenters did not dishearten me.

These researches were difficult and delicate. Convictions, and I dare say courage, were needed to undertake them; it was necessary to be certain of clearly appreciating the circumstances under which I was about to act; it was necessary to rely upon previous experiments; it was particularly necessary to rely upon the purity of intention, and the strict testimony of the conscience.

I did not, in fact, content myself with the great name of Hunter—with the experimenters cited by Bell—with the work of Hernandez, so honorably recognized by the Academy of Besançon—with the authority of Percy, and other names equally renowned; but I wished to study the question in itself—to place myself in the conditions appropriate to a veritable inventor; in fact, to assume myself alone all the responsibility of the results.

How was it necessary to proceed in this experimentation?

I could inoculate a healthy individual—I could experiment on the patient himself."

This our author proceeded to accomplish, and with what benefits to science and to humanity, the Profession is already fully advised. Unlike some, M. Ricord did not inoculate the healthy with the venereal virus; he only tested the experiment on those already the victims of the poison; he varied his experiments, and noted the results, which have long since been laid before the world. He found, in the course of his observations, that the multiplication of the points of inoculation did not aggravate or add to the consecutive accidents of syphilis—"that in reality he would give him no more disease—that he would not augment the gravity of the accidents with which he was already affected—that in a word, he would not expose him, as already stated, to any additional chances of secondary infection." These humane considerations being

well established, M. Ricord, with that love of true science, so peculiar to men of intellect, entered upon the boundless field of experiment—the rich fruits whereof may be gathered from these interesting letters. M. Ricord first directed his attention to blenorrhagic infection. "Women," he observes, "*frequently give blenorrhagia without having it.*" This form of the disease, he says, is as rare in woman as it is frequent in man; and he adds, "I do not think I go too far in saying, that women give twenty clapps to one which they receive." M. Ricord ridicules the doctrine advanced by M. Cazenave—that many women, under the influence of utero-vaginal catarrhs, can have sexual relations without communicating infection—provided they are not heated, to use his language, to boiling points; provided they are not raised, so to speak, to virulent red heat." Our author explains this fact in this wise—hear him:

"Is it not more simple to understand, and more rational to say, that with a less degree of excitation the secretions are less irritant, and that custom can produce an immunity from these secretions in some persons; as it were, by a kind of acclimation?

It is thus, as I have frequently seen, that a married woman may cohabit with her husband without communicating any thing to him; but let a lover supervene, and the latter contracts a blenorrhagia. The husband was acclimated, the lover was not.

When one studies blenorrhagia without prejudice, without preconceived ideas, he is forced to confess, that it is frequently produced under the influence of most of the causes which determine inflammations of other mucous membranes.

The experience of Swediaur is at hand to prove this. This observer injected a volatile alkali into the urethra, and it produced a blenorrhagia. Does this experiment prove that we can always and at will produce blenorrhagia by irritating injections? No; any more than one can always produce a coryza by the same means, an opthalmia, etc. For blenorrhagia, as for any other inflammation, there is required a pre-existing predisposition—that immense unknown which governs all pathology. This is proved by the circumstance that blenorrhage is not always contracted under the same conditions in which it is most evidently communicable. Without this happy immunity, which the absence of the predisposition gives, blenorrhagia, already very common, would be still more so."

M. Ricord, to confound some of his learned colleagues, who advocated doctrines adverse to his own on the specific nature of blenorrhagias, resorted to the following stratagem to show up his opponents. Hear him and judge for yourself, reader:

"A man presented himself at my consultation, with one of the best characterized blenorrhagias. He declared to me that he had only had connection with

one woman, and this was his wife or mistress. The man was alarmed and disquieted. He brought with him the woman from whom he had contracted the disease, and she protesting her innocence, in concert with the patient, supplicated me to submit her to the most rigorous examination. This examination, made with all the rigor and attention of which I am capable, showed me the sexual organs of this woman to be perfectly healthy. There was nothing, absolutely nothing, in the deepest folds of these organs, which could explain the blenorrhagia of the man. I requested the woman to walk into another room, and, alone with the patient, I exhausted all possible means, the details of which I will spare you, to arrive at this certainty. The patient had had connection with this woman alone; it was only in this intercourse that he could have contracted his disease.

I reassured the husband or lover; I exculpated the wife or mistress; but then I asked them to become accomplices of the little stratagem which I am about to indicate.

I sent them both, (separately of course) to this or that learned colleague, whom I knew to be in absolute opposition to me on the question of blenorrhagia. I said to the patient: Ask this question distinctly, Is my blenorrhagia syphilitic? I said to the woman: Ask boldly, Can I give blenorrhagia to a man?

The couple returns; the man with a diagnosis thus arranged: Syphilitic blenorrhagia; follow the treatment ad hoc.

The woman had this indication: The perfectly healthy state of the genital organs permits me to state that madam cannot have communicated a disease with which she is not herself affected.

It is not a unique and isolated fact which I cite to you, my dear friend; the experiment I have renewed frequently, and often enough to corroborate my convictions and to assure my conscience.

What do these facts signify? That the cause of blenorrhagia cannot always be known; that this malady may be produced by the causes common to all inflammations, provided there be a predisposition to it; but that the most special agent of blenorrhagia is the muco-pus furnished by the inflamed genito-urinary mucous membranes."

M. Ricord notes it as his honest conviction, that *simple blenorrhagia is completely distinct from syphilis, so far as relates to the causes which produce it.* After discussing at some length the nature, the source and the specific character of blenorrhagia, M. Ricord closes this part of his subject with remarks on the treatment of this disease. He believes that the abortive treatment by injection, in the early stage of blenorrhagias, so far from producing strictures of the urethra, constitute the "best prophylactic treatment of these strictures;" and that the quicker these discharges are arrested, the less danger of organic lesions of the urethra. These lesions, like others of the mucous membranes, are caused by inflammations; cure the inflammation, and you

abolish all danger of stricture. We are not to infer, because strictures do sometimes succeed to the use of injections, that these latter have caused the former. By no means.

The remainder of the book, from page 94, is devoted to the consideration of pox—syphilis. In this he aims, as he tells us, to seek the specific causes of diseases reputed to be venereal—to study with rigorous closeness their mode of action, in order finally to arrive at a more exact knowledge of their consequences and treatment. In reply to those who deny the efficacy of venereal inoculation, as a test of the genuine disease, M. Ricord holds the following language:

"But to this objection relative to the inutility of inoculation, I have a further reply to make. I have inoculated the same patient, hundreds of times, with the pus of chancre, the pus of balano-posthitis, the muco-pus of urethral blenorrhagia, the muco-pus of blenorrhagic opthalmia, and with the pus furnished by phlegmonous inflammations of other regions; and while the pus of chancre invariably produced chancre, the other kinds remain inactive. What other proof can be desired and what solid objections can be urged against it?

But it has been objected that the effects produced by inoculation on an individual already infected prove nothing as to the nature of the cause: in other words, that the inoculation of an individual with the secretion furnished by himself leads to no important conclusion, because infection first assumed, every wound can and must become syphilitic.

Here is a singular error, which may be attended with serious consequences; a dangerous prejudice, which we are astonished to see still brought forward by those who make pretensions to accurate observation. The facts I am about to mention demolish this objection completely. I well know that the cases of leech-bites, which have taken on the characters of venereal ulcers, have been cited. But be persuaded, my dear friend, that these bites, like every wound made in a syphilitic patient, become venereal ulcers only in so far as they afterwards become affected by the contagion. Apply leeches where there is no contact of inoculable pus; bleed syphilitics as much as you will; make any experiment you please; and if there is no virulent contact, virulent transformation will be impossible. Among the numerous observations I have made which substantiate the truth of this assertion, I will relate the following from the clinique of the Hospital du Midi.

At the time I had a female ward, a patient affected with a phagœdenic chancre of the vulva, with abundant suppuration, was seized with a pain in the tibio-tarsal articulation. Leeches were applied over the painful point. Some days afterwards the patient complained of the bites; and it was easy to see that some of them had undergone a veritable transformation, and had become true chancres. For a moment this result might have been attributed, and some did attribute it to the state of the general system. As for myself, I had not the least doubt as to the nature of this transformation. First—all the bites were not ulcerated. Again—the patient was seized with similar pains in the opposite articulation; a new application of leeches was made, due care being taken to guard against all injurious contact—

and this time, therefore, not one of the bites experienced the least syphylitic transformation.

I made a still more conclusive experiment. I have frequently experimented with the pus of a chancre on a patient laboring under the influence of a constitutional syphilis produced by a preceding contagion; various punctures were made; and here, as in other cases, the matter from the chancre alone gave rise to positive results.

Whatever then may be said to the contrary, it is unjust to compare a syphilitic patient to a leathern bottle full of virus, which is allowed to escape by the smallest puncture: the figure is poetical; but it is not true.

But in order that these results may be invariably obtained, our reason assures us at once that the virulent matter must be taken from a chancre at a certain period—that is to say, at the period of progress. It is very easy to conceive this fact; and I am sure I shall not weary you in seeking to make you understand, that if you take the pus from the surface of an ulcer which is in the way of reparation and cicatrization, you will have a simple, inoffensive pus, which will give you negative results; and that the same accident, experimented on at two different stages of the disease, will lead to different results. You will conclude, then, with all candid observers, that there is no contradiction, no uncertainty in the results of these experiments; and that I have not resorted to evasion, to subtlety of doctrine, for the purpose of explaining facts which seem to bear against the principles which I maintain, and which are maintained by Bru.

When Bru failed to inoculate the pus of chancre, it was for one of two reasons: Either he made an error in the diagnosis, or he took the pus from chancres at the period of reparation. There is no way of escaping from this dilemma; for I repeat, and am ready to prove the fact to the incredulous, if any such there now are, the pus of chancre is inevitably inoculable."

The part about to be inoculated requires only a slight solution of continuity, without the aid of any physiological act, to produce the inevitable effect. The matter from a venereal chancre, like that from a vaccine pustule, will produce its specific effect after it has become thoroughly dried; but to take effect, the virus, like that from the vaccine scab, must be reduced, moistened, and introduced, at some point of solution of continuity.

M. Ricord admits the following variety of chancres: Simple chancres; inflammatory chancres, with an evident tendency to gangrene; indurated chancres.

Our author believes in the unity of the poison, and that the variety of chancres which he has specified, is due to accidental circumstances—to hygienic conditions—and to the constitutional peculiarities of individuals.

But we must here bring to an abrupt close our very meagre sketch of these truly remarkable Letters on Syphilis by M. Ricord. They

are full of practical hints and important deductions; abound in episodes as racy as they are truthful, and always intended to enforce a principle or clear up doubts. These letters will be found as fascinating as some of the best written novels of the day, and hence we advise our young friends to call on T. L. White and buy the work.

Before we dismiss these Letters, we will sum up, in the language of M. Ricord, the Therapeutics of Syphilis at the present day.

1st. Abortive treatment applied to the chancre as soon as possible.

2d. Mercurial treatment reserved for the indurated chancre and for secondary accidents.

3d. Iodide of potassium applied to tertiary accidents.

4th. Mixed treatment, by mercury and the iodide of potassium, in tardy secondary accidents, or when tertiary accidents exist at the same time.

Such are the therapeutic means advised by M. Ricord in the several stages of this cruel disease.

IV.—*Prospectus of the Virginia Medical and Surgical Journal.* Edited by Drs. Geo. A. Otis and H. L. Thomas.

These Editors inform us that the first number will be issued in April, 1853. It will be published monthly, each number to contain eighty large octavo pages. The object of the Journal is to diffuse medical knowledge and intelligence—to advance the science and to support the dignity and interest of the medical profession. Terms, five dollars per annum.

We shall have more to say, when the first number comes to hand, on Journalism and medical literature.

V.—*History of the Medical Department of the University of Louisville: An Introductory Lecture.* By L. P. Yandell, M. D., Professor. 1852.

After welcoming in a few graceful words the class assembled in the medical hall of the University, Prof. Yandell proceeds to compare the three "learned" professions, one with the other. "Medicine alone," says he, "rests upon observation and experience. Law and Theology are historical and dogmatical." In law every thing depends upon precedent and authority; upon precept and decision. In Theology every thing is based upon authority, and that authority is the Bible. But in Medicine, truly observes Prof. Y., authority is (should be) worth but little; we have no traditions nor decisions which have the binding force of law; no records of infallible wisdom, but the book of nature. Medicine is experimental and demonstrative. "The eye of the naturalist, the laboratory of the chemist, and the knife of the anatomist, are all requisite to its advancement."

Books, although useful in the study and practice of medicine, still the student of our science must investigate nature—study her mode of operating—make himself acquainted with the laws by which she is governed—judge correctly of her power for good as for evil—in healthy and diseased states.

The eloquent lecturer next proceeds to demonstrate the antiquity and necessity for medical schools, as auxiliary to a better knowledge of medicine; he then gives a rapid sketch of the origin of medical teaching in this country; says Dr. John Morgan is entitled to the credit of having founded the Medical Department of the University of Pennsylvania, which was first organized in 1765, while Dr. Benjamin Franklin presided over the College. In 1782 a Medical Faculty was attached to Harvard University; and in 1804 Dr. John Davidge laid the foundation of a medical school in Baltimore. Previous to the establishment of these schools, every American student repaired to Europe to acquire a knowledge of his profession. In the fulness of time, as the population began rapidly to increase in the West, the necessity for another medical school, to supply the wants of the people, was seriously felt, when, in 1817, Doctors W. H. Richardson, B. W. Dudley, Daniel Drake, Joseph Blythe, and James Overton, formed themselves into a Faculty of the Medical Department of Transylvania University, at Lexington. From this time forward, with many changes in the Faculty, and always a small and fluctuating class, for several of the first years, the school

gradually rose in public confidence, and ultimately attained much popularity in the South-West. About the year '35–6, the Faculty of the Lexington School began to feel and acknowledge that to maintain the medical department in the ascendency which it had for some time enjoyed over the one in Cincinnati, it must be transferred to a more desirable location—at some point where the facilities for the study of disease, and the pursuit of anatomy would be much greater; and Louisville was the point chosen by common consent, to which the School should be transferred. But when the moment arrived for the transfer, both the citizens of Lexington and the Trustees of the University interposed objections, and positively interdicted the removal of the Medical Department. This led, as is well known, to some difference among the Professors, and finally to a dissolution of the Lexington Faculty—one half, viz: Doctors Dudley, Richardson and Short, remained attached to the Lexington School; the remaining three, Doctors Caldwell, Cook and Yandell, accepted chairs in the *Louisville Medical Institute*, which had been recently chartered by the Legislature of Kentucky.

Prof. Yandell gives an interesting account of the gradual growth of Louisville Medical Institute in public estimation; the slow but steady increase in the number of students; when finally, in 1845, on the eighth session of the Institute, the Kentucky Legislature granted a charter for the University of Louisville, of which the Institute was constituted the Medical Department. The first class that assembled in the Medical Department of the University numbered 353 students, and the second reached 406! The School has had many difficulties and obstacles to oppose its progress; but we believe now it is as well established and perhaps as prosperous as any medical institution this side the Blue Ridge. It has an able Faculty and every facility for imparting a sound medical education. We thank Prof. Y. for his favors.

VI.—*The Druggists's Receipt Book, comprising a copious Veterinary Formulary, etc., etc.* By Henry Beasley. Second American from the last London edition. 1853.

To the planter, farmer, cuisinier, veterinary surgeon, and *all others*, this book must be invaluable, as it furnishes the preparations, doses, and mode of action of all such medicines as may be required in the treatment of the diseases of all our domestic animals.

For the dealers in *Perfumery* it must prove highly advantageous,

because it lays down all the formulas for the compounding of this branch of the trade. Nor does the book neglect to enlighten us on the science and art of preparing *Cosmetics*—that essential part of the toilet of many of our fashionables—we regret to say, of both sexes. *Dietetics*, *Beverages* and *Condiments* also receive more than a passing notice. In a word, the book furnishes a species of information of the first importance to almost all kinds of trades, occupations and professions. It should be found in the library of every family from Maine to Oregon. J. B. Steel, 60 Camp street, has it for sale.

VII.—*Principles of Human Physiology, with their chief applications to Psychology, Pathology, Therrpeutics, Hygiene, and Forensic Medicine.* By William B. Carpenter, M. D. F. R. S. F. G. S., etc., etc., etc., etc. 5th American from the 4th London edition, with 314 Illustrations. Philadelphia, Blanchard & Lea, 1853. pp. 1090.

This, the 5th American edition of Dr. Carpenter's great work on Human Physiology, has been entirely remodelled, and in many parts re-written and fashioned according to the present progressive state of physiological science, as it exists in every section of the scientific world. Dr. C. has aimed to give a *practical* direction to the science of Physiology, which has never been attempted in similar works on the same subject; how far he has succeeded the studious reader will be made acquainted as he turns over the thousand pages of this vast work. Many portions of the book have been entirely reconstructed—others curtailed—such, for example, as related to the "*Place of Man in the scale of being*," and such other portions of the work as treated of Comparative Physiology; whilst the sections which treated "*of the different branches of the human family and their mutual relations*," have been much amplified and extended in all that relates to man.

The Second Chapter of this edition, which treats of the "*Chemical Components of the human body, and the changes which they undergo within it*," is introduced for the first time, and will be found replete with instructive matter, more particularly in that portion of the chapter which treats of the respective relations of fibrin and albumen to the nutritive process, and of the former to the gelatinous tissues; not forgetting to glance at the recent discoveries of M. Ch. Bernard in regard to the elaboration of sugar and fat by the liver.

The consideration of the chemical components of the organism and

the important part performed by these in the vital processes, led the author naturally to consider the "*Structural Elements of the human body,and the vital actions which they exhibit,* constituting the Third Chapter of the work, which is now introduced for the first time in the book. In this chapter are also discussed the general doctrines of cell formations and of vital force, in their application to human physiology.

Chapter Fourth treats of the physical characters, chemical composition and vital properties of the blood; most of which has been entirely re-written, and greatly extended beyond the limits which has heretofore been devoted to the same subject in any former edition. In accordance with the suggestions thrown out by certain friendly critics, Dr. Carpenter tells us he has reversed the previous arrangement of the chapters which treat of the functions in detail—the organic being discussed before the animal functions; and this arrangement involved other changes in the plan of the work, which it is hoped and believed will add materially to a better understanding of the subject.

It can scarcely be necessary for us to notice all the improvements and changes introduced in the present edition; these will be developed as the reader scans the work; but the greatest addition will be found in Chapter XIV., which goes at considerable length into the *Functions of the Nervous System*—both in its psychological and physiological relations.

We think we have said enough (although we have but glanced at a few of the additions and improvements to be found in this edition) to prompt the student of Physiology to make himself well acquainted with its contents. We are gratified to perceive that British authors are at last about to do justice (though tardy, it may be,) to the valuable labors of our fellow countryman, Dr. Bennet Dowler. In this last edition, Dr. Carpenter has not only referred to the writings of Dr. D., but has copied into the context of his work his experiments on *post mortem contractility,* published some years since, we believe in this country. The cultivators of science should eschew all envy and seek the truth.

White, 105 Canal street, has this valuable work for sale.

VIII—*Materia Medica or Pharmacology and Therapeutics.* By Wm. Tully, M. D. November, 1852.

If we are correctly advised, Dr. Tully has written a valuable treatise on Materia Medica, which will be published in parts, this being the first of the series. From the "Introduction," which is elaborately prepared, we are enabled to gain some insight into the peculiar views of Prof. Tully—these will be found in some respects original, if not always correct, and hence, we think the work, when completed, will attract some attention.

The author has long enjoyed a high reputation among his professional brethren of New England, and this effort will add still more to his popularity as a sound thinker and a good writer. His views of the mode of action of remedies, differ in many particulars from his predecessors and his cotemporaries. Setting aside some very just strictures on the Materia Medica of Cullen, Murray, and others of that and later epochs, Dr. Tully devotes a large portion of this *Fasciculus* to the consideration of the *Modus Operandi Medicaminum*, as he expresses it, and defines "*Health* to consist in a natural, easy, regular and perfect discharge of all the functions of every part of the living animal system;" whereas he defines "*Disease*, in the extended acceptation of the term, to consist in any deviation from health, either in structure, or function, or both, in a part or the whole of a living system; or it is some vitiation of the actions or sensations, or both in conjunction, of the living, acting, sensitive solids." These definitions, always defective in themselves, and seldom satisfactory, will however be found as near the truth as others that have been enunciated on similar points. Dr. Tully continues, "The particular unnatural, uneasy, irregular, and imperfect discharge of the functions of one or more of the parts of a living animal system, or in other words, the particular deviation from health, either in function or structure, or both, in one or more of the parts of a living animal system, constitutes the pathological condition. Except from mechanical lesions, as appears to me, there is no such thing as a primary structural disease. It will at once be obvious, that without a mechanical lesion, a change of structure cannot possibly be produced except by a change of function. A medicine, or in other words a remedy for disease, is an agent or process, which, by proper application or employment, changes, counteracts or overcomes disease, and either directly restores the functions to a healthy state, or produces such a condition merely as will readily become a healthy state, on the discontinuance of the remedial agent or process. Healthy function, then, con-

sists in right actions or motions, and right sensations, in the living solids. Disease consists in wrong or vitiated actions or motions, or wrong or vitiated sensations, in the living solids. Medicinal influence consists in the counteraction of wrong or vitiated actions or motions, and of wrong or vitiated sensations in the living solids. When no wrong or vitiated actions or motions and no wrong or vitiated sensations exist in the living solids, the greatest portion of medicinal agents, when given in medicinal doses or quantities, are capable of producing temporary deviations from right actions or motions, and right sensations, in the living solids, but usually in too slight a degree, and of too transient a character, to amount to disease."

The actions of medicines will be influenced by so many and divers agencies, that it is exceedingly difficult to lay down any positive law or line of action by which they shall be constantly governed. Thus Ipecac, generally, and in most persons, acts in large doses as an emetic; yet we have, with others, known it, although given in emetic doses, actually to allay nausea, and determine sound and refreshing sleep, when opiates, etc., had totally failed to produce any such result. This fact, we have noted, in the case of young persons, in several instances. We might multiply almost *ad infinitum* anomalous and exceptional cases of this kind; every Physician in large practice can readily recall similar cases.

We are free to confess that the profession knows, in reality, little or nothing of the modus operandi of therapeutic agents; from the most obvious effects of medicines, we are too ready to conclude that we appreciate their full influence upon the economy; forgetting in the meantime, all those molecular changes which are undoubtedly brought about by every perturbating agent which may be applied to, or introduced into the living system. To know that one medicine acts as a cathartic, another as a narcotic, and so on, is indeed to restrict our information to a few simple self-evident facts; but to go beyond this limit—to fathom the mysteries of therapeutics, *hic opus, hic labor est*—this is the gordian knot, which as yet we are not prepared to untie. Perhaps the day is not distant, when, by the aid of organic chemistry, we may be made acquainted with the influence of medicinal substances upon the organism; at present, however, we must be content with the knowledge of a few isolated facts, and look forward to the future for more reliable information on the subject of therapeutics. The great discrepancy of opinion which every where exists on the peculiar action of most medicinal substances, proves conclusively how little we actually know of therapeutics.

Dr. Tully thinks that the primary manifestations of the operation of all medicines are either—1st, on the nervous system generally, or some subordinate part of it; 2d, the primary digestive system; 3d, on the secernents and absorbents, or the glandular system; 4th, on the sanguiferous system; 5th, on the reproductive system.

This to us is about equivalent to saying, that the primary operation of all medicines is made manifest *somewhere*, or upon *some* parts of the animal system; in other words, we are absolutely ignorant of the action of "*all medicines;*" and why not confess the fact—why not plead ignorance of these great mysteries? Thus far all theories on the subject are but idle speculation, and every writer on the subject fixes the primary action of medicines—*somewhere* of course—one upon the nervous, another upon the sanguiferous system, whilst a third, a little nearer the truth, perhaps, will have it that the primary action of medicine is exerted upon the mucous membrane of the stomach, and that a certain influence, according to the specific character of the agent, is propagated to either the nervous or sanguiferous system, or to both, according to the states of the system and individual susceptibilities. We must either claim to know nothing or every thing on this subject; a medicine either acts or it does not act; if it acts it *must* modify the vitality, (meaning thereby its state of being) of the part or parts; this modification of vitality is not restricted to a particular tissue, structure or part, but embraces all the tissues, structures, etc., of the part or parts upon which the primary impression is made. Again we will hear Dr. Tully:

"It is a plain question of fact, and not at all a matter of theory or hypothesis, viz: Do medicines that are taken into the alimentary canal produce their medicinal effects by an impression and influence made first upon the inner parieties of the stomach and upper and smaller intestines, and thence propagated by the nerves to the parts or organs in which we perceive the primary manifestations of operation; or is the medicine in its entire state, or its activ proximate principle unchanged, received into the mass of the circulating fluid, by which it is carried about, until it is brought into actual contact with the parts in which we perceive the primary manifestations of its operation? Does the very small number of medicines which are capable of being injected into the blood-vessels with impunity, produce their medicinal effects by an impression and influence made first upon the inner parietes of the blood-vessels, and thence propagated by the nerves to the parts or organs in which we perceive the primary manifestations of operation; or is the medicine in its entire state, or its active proximate principle, unchanged, carried about by the blood until it is brought into actual contact with the parts in which we perceive the primary manifestation of its operation? Do those medicines which are applied to the skin and the bronchial membrane produce their medicinal effects by an impression and influence made first upon these parts, and thence propa-

gated by the nerves to the parts or organs in which we perceive the primary manifestations of their operation; or is the medicine in its entire state, or its active proximate principle unchanged, actually absorbed into the blood by the skin and bronchial membrane, (two non-absorbing textures) and carried about till it is brought into actual contact with the parts in which we perceive the primary manifestation of its operation?

Some medicines appear to be absorbed in quite small quantity into the blood-vessels, and this in their entire state. It will be obvious that elements can be thus absorbed only in their entire state; but several salts of inorganic and chemical origin are absorbed in the same manner. Vegetable and animal organic compounds are very rarely if ever absorbed entire into the blood-vessels. It is only some one of their proximate principles, and that often in a much modified state, that is ever found in the blood, or emunctories, except the lower and larger intestines. Coloring and odorous principles are almost exclusively the principles of vegetable and animal organic compounds that are ever found to be received into the blood-vessels from the alimentary canal. These are rarely the medicinally active principles of vegetable and animal organic medicines. When the odorous principles of vegetable and animal organic medicines are absorbed from the alimentary canal into the blood vessels, they are commonly perceived subsequently, either in the urine, the sweat, or the halitus from the lungs. When the coloring principle of vegetable and animal organic medicines are absorbed from the alimentary canal into the blood-vessels, they are commonly perceived subsequently in the urine only, of all the excrementitious secretions."

When the work shall be published entire, we shall be better enabled to judge of its peculiar merits.

IX—*A Discourse on the Times, Character and Writings of Hippocrates.* By Elisha Bartlett, M. D., Professor of Materia Medica, and Medical Jurisprudence.

In his discourse upon the writings and character of Hippocrates, Dr. Bartlett has placed before us a paper of some interest, containing historical facts and annotations from the writings of the father of medicine, who is first introduced to the reader in a Thracian city, at about the age of thirty, at the bedside of the young Silenus, watching steadfastly and anxiously the development of the gravest symptoms of his case, and having made these known to his afflicted wife in "a few pious and kindly words, we are quickly carried to chambers of other sick friends of the young Physician, who, to the duties of his vocation, su-

peradds those of "guide and philosopher;" high powers are also assigned to him in didactic and persuasive oratory.

The author of the Discourse briefly alludes to many of the works of Hippocrates, giving many of his sound views upon medical subjects, and lightly commenting upon some of those, which, at the present day, would not be considered so sound. Having quoted many of the sententious, and sometimes dogmatical *Aphorisms* of the Greek, the writer passes on to notice the surgical acumen of the subject of his discourse, and although centuries have rolled on, and modern improvements and modern innovations have veiled much of the past in oblivious night, and although Greek and Roman eloquence can no longer enchain the minds, and lead captive the hearts of assembled thousands, we have still imperishable monuments handed down to us in their books.

The following passage will have as great force now as at the time in which it was written: "It is necessary," says Hippocrates, "to accustom one's self to the use of either hand, and of both at the same time—having for rule, utility, suitableness, promptness, dexterity, elegance and facility." . . . . "In the application of a bandage, the conditions to be fulfilled are promptitude and dexterity, which prevent pain,—ease and elegance."

Outstripping his contemporaries, yet exposed to their censure, frequent controversies arose; upon one of these the writer of the Discourse remarks:—

"One of the curious facts in connection with the treatise on Articulations, is that of a warm controversy between Hippocrates and several of his contemporaries, in relation to dislocations of the thigh. Ctesius of Cnidus, physician to the court of Persia, and principally known by some historical fragments, blames Hippocrates for reducing, at all, the dislocated femur, since it could not be kept in place. Hegetor accused him of not understanding the anatomy of the hip joint."

After stating that diseases were actively treated prior to the time of Hippocrates, it is observed by Dr. Bartlett:

"It is true, then, that Hippocrates entered upon a field already alive and busy with a certain degree and variety of scientific activity; and that he found already accumulated, and more or less prepared to his hands, an aggregate by no means small or unimportant, of authentic observation, recorded and traditional. Even Hippocrates had his past; there was a medical history older than himself.

The Persian kings, more than a hundred years before the time of Hippocrates, were in the habit of employing Greek physicians, attached to their courts.

The singular history of Democides is a curious illustration of the condition and the social position of physicians at that time. He was the first, says Grote, of those many able Greek surgeons, who were seized, carried up to Susa, and there detained for the great king, his court and harem.

In studying the character and position of Greek medicine at the time of Hippocrates, and in estimating its scientific claims and pretensions, it is important to notice how little of it came from abroad. The Greeks derived their earliest notions of astronomy from the Chaldeans, but there is no evidence that medicine had ever advanced beyond the lowest and rudest condition on the banks of the Tigris and the Euphrates. We are told by Herodotus, that in the city of Babylon the sick were brought to the market places, and exposed to the examinations of the public, for such rude assistance as any chance comers might offer.

By the Egyptian priesthood, it is true, medicine was more formally cultivated. But although at the time of Hippocrates Egypt had been opened to Greece for two hundred years, and although it is well known that many of the Greek historians, poets and philosophers visited this elder seat of civilization, and studied its character and institutions, it does not appear that Greek medicine was indebted in any considerable degree to that of Egypt. If Greece received any thing from Egypt, it was like the wheat taken from her dark old sepulchres, where it had lain dormant for ages, and which germinated and brought forth its full-headed and golden sheaves only when planted in her own pregnant and prolific soil. The character of the Egyptian mind, and of Egyptian institutions, fixed, stationary, shackled, unexpansive, was adverse and unfriendly to the origin and development of any arts and sciences requiring independent and various observation. On the contrary, the fact of which I am speaking, in regard to Greek medicine, finds its natural and obvious solution in the character and qualities of the Greek mind. This mind was wonderfully quick, susceptible, apprehensive, and to a great extent it was free. Grote calls the Greek 'flexible, many-sided and self-organizing.' 'The Iliad and the Odyssey,' he says, 'demonstrate, in the primitive Greeks, a mental organization, unparalleled in any other people.'"

Many parts of the Discourse may be found enlarged upon in the writings of Hippocrates and Galen, by John Redman Coxe, M. D.

The condensed statements of Dr. Bartlett may be read with pleasure and profit. G. T. B.

X.—*Sketches of Military Surgery. An Introductory Discourse deliverd to the Kentucky School of Medicine.* By Prof. J. B. Flint. 1852.

In this well written Lecture, we are carried back to the times of Chiron, Podalerious, Machaon, and others of the heroic age—to the times when the practice of Surgery elevated its followers among the

gods, and conferred immortality upon those who performed the part of Chirurgeons on the fields of battle in the plains of Troy—to the times when ball and powder were unknown in the contest for power and dominion among the nations of the earth—to the times when Homer eulogised the healing art, and sketched with a master's hand the achievements of his military Surgeons.

We shall not attempt even an outline of the graphic sketch of martial surgery, given by Prof. Flint in this lecture ; all who have read the history of medicine must be familiar with the facts and events which he has so well related in this discourse. But to the students to whom it was addressed, and for whom it was prepared, it must have been exceedingly interesting and instructive. A portion of the lecture is devoted to the consideration of *American Military Surgery* during the revolutionary war, when many of the most " eminent practitioners of the day, at great sacrifice of personal ease and profit, devoted themselves to their country, in professional attentions to her patriotic troops."

The first Surgeon-General in the American army was Benjamin Church of Boston, who accepted this responsible office at the instance of Gen. Washington. Some of the noblest spirits that engaged in that immortal contest—that contest which secured us liberty, appertained to the medical profession ; indeed the services rendered our heroic little army and our country, by the Physicians of those days, are duly chronicled and embalmed in this truly eloquent lecture. Our author closes with some severe strictures upon the present mode of appointing and promoting Surgeons in the Army and Navy.

XI.—*Report of the Board of Administrators of the Charity Hospital for* 1852. New Orleans.

We have received from Henry Bier, Esq., Treasurer of the Charity Hospital, the annual Report of the Board of Administrators for 1852, which is addressed to the *Hon. Senate and House of Representatives of the State of Louisiana.*

Among many suggestions contained in this Report, to advance the interests of that great charity, we notice particularly the following, which we heartily endorse. The Report insists, as heretofore, " upon the absolute necessity of establishing some institution, in the suburbs

of the city, combining the properties and advantages of an *Alms House* and *Hospital*, for the reception and treatment of contagious diseases, such as small-pox, ship fever, etc.—the care and entertainment of *helpless* and *incurable pauper invalids.*" The Board also further urge the propriety of additional provision for the reception and treatment of the insane.

The want of an Hospital or Lazaretto out of the city limits, for the reception, seclusion and treatment of those afflicted with infectious, contagious, or communicable diseases, is so great, and seemingly so obvious, and has been so often urged, that we are not a little surprised that it has been so long either overlooked or disregarded by those who have the power to act in this important matter. In defying contagious and pestilential diseases, New Orleans assuredly stands far in advance of any other large city of the Union—perhaps of the world. Our exemption from plague, pestilence, etc., can only be ascribed to the mercies of Providence ; for in sooth, every species of disease, from whatever quarter of the globe it may be brought, is freely admitted into our gates without let or hindrance ; we have no sentinels, like other populous towns, to guard the portals of our hospitals ; the infectious subjects are thrown, pell mell, with those laboring under simple and benign types of diseases ; typhoid and typhus fevers, just imported from the shores of Europe, being brought in juxtaposition with our simple intermittent and remittent fevers, in the crowded wards of our Hospitals—soon spreads from bed to bed, diffusing infection in every direction, and ceasing only with the death of its hundred victims. Now, all medical history and observation go to demonstrate, that separation or segregation is the surest and most certain method of checking and finally extinguishing the germs or poison by which typhus and typhoid fevers are propagated from one subject to another. Let our authorities bear this fact constantly in mind, and they will soon fall upon the only sure remedy —the establishment of an Infectious Hospital out of the city limits, by which this class of diseases may be held in check, if not utterly banished from our precincts. Our present exemption from all kinds of contagious diseases is surely no guarantee for the future ; a single day may suffice for the introduction of unnumbered ills—of a host of zymotic affections, which may require weeks to subdue, and months to exterminate.

But why dwell at length on the necessity of providing other accommodations beyond the city limits for infectious diseases? The evils resulting from the unrestrained reception of this class of patients into the Charity Hospital, have been again and again spread before the au-

thorities, and still no steps have been taken—no movement made—no remedy provided for the sick immigrant, other than this much abused, but noble institution.

We leave this subject for the present, still hoping that some plan may ultimately be devised, by which every species of contagious or infectious disease shall be excluded from the Hospital.

The births for 1852 were 173. Males 86, females 76. Still-born 11. Total deaths during the year 2098.

The aggregate number of			patients admitted for	1852 was	18,035
"	"	"	discharged	"	15,057
"	"	"	died,	"	2,098

Of the whole number of patients there were—

From foreign countries,	16,144
From the United States,	1709
Unknown,	181

Of which number only 248 were from the State of Louisiana!

We would not boast of being more charitable than our neighbors, but would ask, in no spirit of self-laudation, what State in the Union, of our population, extends similar aid and comfort to as many sick and distressed strangers? Nor must it be forgotten that these eighteen thousand patients receive gratuitously the services of the Medical Faculty of this city!

XII.—*A Practical Treatise on Dental Medicine. With an inquiry into the use of Chloroform*, etc., etc. Second edition, revised and enlarged. By Thos. E. Bond, A. M. M. D. 1852.

Without any special knowledge on the subject of Dentistry, and with less taste for dental manipulations, we can nevertheless go so far as to state, that the work by Dr. Bond forms an excellent guide for those who are engaged in this branch of our profession. We observe, nevertheless, that the author, in imitation of nearly all who take up and treat of any speciality, would have the world to believe that "bad or decayed teeth lay the foundation for nearly all the diseases and ills to which poor human uature is exposed. This is in part true; but it is not wholly correct. In some subjects the least dental irritation excites a serious train of morbid actions which may induce serious disturbance of the entire organism; whilst in other individuals, the entire teeth may perish of caries, one after another, and yet be attended with little lo-

cal and less constitutional disturbance. It is affectation to magnify trifles after this fashion; better state candidly the facts, and leave the public to decide on their merits.

In the work before us the author has trenched considerably on the domain of *surgery* proper, and so far, we conceive, has transcended the limits to which the title of the work bound him. We believe Dr. Hullihen's new method of plugging decayed teeth, after a lateral perforation of the body of the tooth, near its root, has been discovered and made known since this work passed through the press. Doubtless ere this reaches another edition, the operation will have been fully tested, and if found to be all that is claimed for it, will be fully detailed by the author.

The work is useful, and may be found at Steel's, 60 Camp street.

XIII.—*On Variations of Pitch in Percussion and Respiratory Sounds, and their application to Physical Diagnosis. A Prize Essay.* By Austin Flint, M. D., of Buffalo, New York. 1852.

The prize papers, elicited by the National Medical Association, begin to awake some of the ambitious spirits in our profession ; and hence, much good both to the profession and the public interest, may be, in due time, expected from this source. The Essay before us, from the pen of Dr. Flint, will serve as an excellent guide for those who may strike for any prize that may be offered hereafter, being clearly stated and candidly and philosophically argued in all its details. The application of the principles embodied in the title of the paper, is, we believe, quite new ; and it will be for the profession to determine how far Prof. F. has made them subservient to the elucidation of disease. The Essay reached us too late to receive, in this number, that careful and extended analysis to which the writings of the *Louis* of America are entitled.

Part Fourth.

MISCELLANEOUS MEDICAL INTELLIGENCE.

I.—*Last illness of the late Hon. Daniel Webster, Secretary of State--with a description of the post mortem appearances.*

This number of the Journal contains a history, taken from a late London Lancet, of the last illness of the "*Iron Duke,*" the hero of Waterloo; but we have no account of the post mortem appearances of his Grace. It rarely falls to the lot of an editor of a *bi-monthly* to record the medical history of two such remarkable men as the Hon. Daniel Webster and the famous Duke of Wellington; the first, a statesman of vast and comprehensive intellect, whose claims to history and immortality were established in the Senate Chamber and in the Forum; the other, a warrior—a General, whose military exploits and extraordinary achievements on the battle-field proclaimed him the first Captain of his age.

But we have to deal now with frail mortality—with all that remains of the great and the powerful. We may not inaptly apply the language of Horace to these two characters:

Pallida mors æquo pulsat pede pauperum tabernas,
Regumque turres.

Infirmity and death must overtake all; alike the mighty and the impotent, fall before the great Destroyer.

Daniel Webster was of a sanguineo-bilious temperament, of a swarthy complexion, with straight black hair, with a large, athletic and well proportioned frame. He was five feet ten inches in height, and when in health weighed 190 pounds. His appearance was peculiarly imposing, and the expression of his features, more particularly of his eye, was perhaps more powerful than that of any other man. At his death he was nearly 71 years of age. Although endowed with an iron constitution, Mr. Webster had been *subject to an habitual diarrhœa for the last eighteen or twenty years.* For about the same length of time, he had also been a sufferer from catarrh, which seemed to give him much trouble from about the middle of August up to the first of October of each year.

In September, 1852, Mr. Webster on his return from Washington to Marshfield, took cold in Baltimore, and first complained of the symptoms connected with his last illness. At this time his complexion, (never very clear) was sallow, though not jaundiced; he had lost much flesh, and was quite feeble; complained of pain, or rather uneasiness in the left side of the abdomen, with a sense of tightness across the lower portion of the bowels. The bowels were loose; appetite gone; skin commonly dry; also fauces and tongue, with much thirst; pulse 106, full but compressible, and jerking, with 5 intermissions the minute. Urine scant and high colored; abdomen distended with flatus, with some evidence of dropsical effusion. There was no tenderness over any part of the abdomen; the feet and legs were œdematous. He complained of a gouty pain in the feet, limbs, etc. He had about three dejections in the twenty-four hours, the last of which was loose, urgent and attended with flatus. In this state of the bowels, Mr. W. was ordered the following: (the italics are ours, *Ed.*) "*To take two drachms of castor oil, and an equal quantity of lemon juice, every second or third day, if troubled by distension, or if the bowels did not act kindly!*"

He was at the same time ordered a cardiac mixture twice a day, and a "*pill of one grain of acetous extract of colchicum with two grains of camphor each night.* At the same time friction and alcaline baths were used. On the 30th his Physician again saw Mr. W. at Marshfield, with nearly the same symptoms; the abdomen, however, was a little more tense and flat, with evident fluctuation, and soreness on the left side; for this five leeches were applied with relief."

At the above date, (30th) he was ordered one sixteenth of a grain of morphine; to have the abdomen fomented with spirits turpentine, and to take a pill of four grains camph. extract of colocynth, and to have eight or ten leeches applied to right hypochondrium; and lastly, to take *two tea spoonfuls* of brandy once daily.

Soon after the above date, Mr. Webster became sick at the stomach; vomited blood repeatedly; began to sink, and expired a little after two o'clock Sunday morning, October 24th, 1852.

The *Autopsy* was made in the presence of his Physician, Dr. Jeffries, Drs. Porter, J. W. Warren, Wyman, Parkman and Jackson. In the abdomen eleven pints of serum was found. Adhesions existed about the spleen, gall bladder, cœcum and arch of the colon. The stomach contained half a pint of dark blood; its mucous membrane rather softened and mamellonated; blood was found in the *primæ viæ* as far down as the descending colon. No ulceration was detected in any part of the alimentary canal, to account for the chronic diarrhœa. The liver was granulated, dense, and contracted in size; its weight was three pounds and one third avoirdupoise; bile in gall bladder nearly black and tarry. Spleen small, pale and shrunken; its peritoneal covering was opaque and thickened. Kidneys and pelvic organs healthy. In the *thorax*,

old pleuritic adhesions over nearly the entire right side; on the left none. The lower part of both lungs congested and dark; passive. Heart flaccid and nearly empty; slight disease of aortic valves; otherwise organ healthy. Abdominal aorta slightly ossified.

Head.—All the membranes of the brain remarkably diseased. The arachnoid was greatly thickened by a layer of fibrine, and the "serous effusion into the membranes was altogether large." The substance of the brain was healthy.

The immediate cause of Mr. Webster's death was passive hemorrhage of the stomach.

The capacity of Mr. Webster's cranium was 122 cubic inches; whereas Dr. Morton's estimate of the average capacity of the Teutonic family (including English, Germans and Anglo-Americans) is 92 cubic inches.

We condense the above from the report of Dr. Jeffries, published as already stated, in the July number of the *American Journal.* We feel satisfied our subscribers will peruse it with serious interest.

Remarks.—We have italicised that portion of the report upon which we wish to make a few comments; not with any disposition to "disagree" with the very able men who managed the case, but as a text upon which to hang a few observations.

Judging from the symptoms, as detailed, Mr. Webster suffered with irritable bowels, and yet he was ordered castor oil and lemon juice, either of which, we have been taught, both by experience and theory, would aggravate the evil for which they were prescribed. Lemon juice and castor oil for enteric irritation, attended with "*flatus, and loose, frequent, and urgent dejections!*" We opine Hamilton himself, had he stood at Mr. Webster's bed-side, would have paused before venturing upon such a prescription. Not content with the mischief that might have been produced (for the patient did grow worse) by castor oil and an active vegetable acid, the illustrious patient was ordered, just on the heels of this prescription, "*cardiac mixture,*" and a "pill of one grain of *acetous extract of colchicum with two grains of camphor each night.*" Colchicum and camphor to follow a dose of oil and lemon juice, in a case of irritable bowels, with *dry skin, tongue and fauces, and with a pulse* 106 *and jerking,*" seem to us in direct conflict with the pathology and therapeutics of the present day. We should have preferred a small quantity of blue mass, with extract Hyosciamus, suspended in a large quantity of mucilage, as both more rational and less likely to augment the gastro-enteric irritation. It is true, at a later date the patient was allowed one sixteenth of a grain of morphine and two tea spoonfuls of brandy per diem. If we have been correctly informed, Mr. Webster had been a free eater, and drank wine freely at dinner (and this fact the state of his liver clearly demonstrated); and yet he was allowed only two tea spoonfuls of brandy, when perhaps a more liberal allowance might have sustained his sinking powers and exhausted system.

It is stated that the Duke of Wellington was suffered to perish for want of a glass of brandy and water; and we can but think the life of our great statesman might have been *at least* prolonged, had his attendants given him brandy or wine more freely. These are, however, mere speculations *post hoc*, and are not intended to reflect upon the motives or skill of the distinguished medical gentlemen who waited upon the Secretary of State.

(*Ed. N. O. Med. and Sur. Jour.*)

II.—*Potash in the treatment of Scurvy.*

An Assistant Surgeon U. S. Army, Dr. Hammond, stationed in New Mexico, reports in the January No. 1853, (American Journal Medical Sciences) several cases of scorbutic disease met with among the troops under his care, in which he tried the potash with speedy and marked good effects. The cases, although not numerous, were well marked by the usual loathsome symptoms, all of which disappeared under the alcaline treatment.

Dr. Hammond gave the carbonate of potash in five grain doses (very small —*Ed.*) three times daily, and in no case did the disease resist the remedy beyond one or two weeks. The bitartrate of potash, he thinks preferable, and of this he gave one drachm three times daily. Dr. Hammond tells us that he was led to adopt this treatment upon the hypothesis thrown out by Dr. Garrod of London: that scurvy depends for its existence upon a deficiency of potash in the blood, which potash is essential to the nutrition of muscular fibre.

(*Ed. N. O. Med. Journal.*)

III.–*On the Function of the Spleen and other Lymphatic Glands as Secretors of the Blood.*

BY DR. J. H. BENNETT.

Dr. Hughes Bennett here treats of, 1st, the relation between the colorless and colored corpuscles of the blood; 2d, the origin of blood corpuscles; 3d, their ultimate destination.

1. *Relations between the Colorless and Colored Corpuscles.* Dr. Bennett believes with Mr. Wharton Jones, that the colored corpuscle is merely the liberated nucleus of the colorless cell; the transformation takes place in the following manner: The colorless cell may frequently be seen by the aid of acetic acid, to have a single round nucleus; but more commonly the nucleus is divided, each half having a distinct depression, with a shadowed spot on the centre. Occasionally, before division takes place, the nucleus becomes oval, elongated, and somewhat bent, or of a horse shoe form. It may be divided into three or four granules; these stages are figured by Dr. Bennett; they were discovered by him in his interesting observations on leucocythemia, and in experiments on mammals, birds, reptiles and fishes.

He does not believe with Mr. Wharton Jones, that all the nuclei forming the col-

ored corpuscles in mammals should necessarily be provided with a cell wall. Many however, do proceed beyond this point, and may be seen to have cell walls; the nuclei in such cases increase endogenously, by fissiparous division, and on the solution of the cell wall, become colored blood-discs. In fishes, reptiles and birds, the colored blood-corpuscles are nucleated cells, originating in blood glands.

2. *Origin of the Blood Corpuscles.* This, as was enunciated many years ago by Hewson, is to be looked for in the lymphatic glandular system, under which head are included the spleen, thymus, thyroid, supra-renal, pineal and lymphatic glands. Nuclei and nucleated cells are found in these bodies. and Dr. Bennett's observations on leucocythema have shown that an increase of colorless cells in the blood is connected with enlargement of the spleen and other glandular organs. The blood of the splenic and portal veins is always richer in colorless corpuscles than that of the systemic circulation; and in young animals, in which the thyroid, thymus and supra-renal glands are most fully developed, the blood contains most colorless corpuscles. Moreover, in case of enlargement of the thyroid body, this organ contained cells and nuclei of much smaller cells than usual, and corresponding cells and nuclei were found in the blood. In another case, the colorless corpuscles in the blood were of two distinct sizes, corresponding with a similar appearance in the corpuscles of the lymphatic glands. It is difficult to determine how the corpuscles find their way from the lymphatic glands into the blood; but Dr. Bennett suspects that there must be a direct venous communication. He believes that if he has established that the corpuscular elements in the so-called blood glands are transformed into those of the blood, it will follow that the lymphatic glands secrete the blood-corpuscles in the same manner as the testes secrete the spermatozoa, the mammæ the globules of the milk, or the salivary and gastric glands secrete the cells of the saliva and the gastric juice.

The most probable and consistent mode of origin of the corpuscles is in an organic fluid, by the production of molecules, the successive development and aggregation of which constitute the higher formations. Multitudes of free nuclei join the blood and are at once converted into colored blood-discs; and their cells circulate for a time, when their walls are dissolved, and their nuclei become colored. The number of colored corpuscles in the blood increases in proportion to the development of the lymphatic glandular system in the animal kingdom, and Mr. Drummond and Dr. Bennett have observed that the nuclei in the spleen, varying in size in different animals, correspond with the nuclei of the blood-corpuscles.

Ultimate Destination of the Blood Corpuscles. Dr. Bennett believes that the blood corpuscles are dissolved, and with the effete matter absorbed from the tissues around the lymphatics, constitute blood-fibrin. Zimmerman believed that fibrin resulted from the metamorphosis of the textures. The arguments which support this view appear to Dr. Bennett to be unanswerable: there is no fibrin in the chyme, very little in the chyle, less in carnivora than in herbivora; there is no fibrin in the egg, nor in the blood of the fœtus, and very little in the new-born infant. On the other hand, all those circumstances which cause exhaustion of the textures, or increase the amount of absorption, augment the quality of the fibrin; as after inflammatory or other exudations, starvation, violent fatigue, pregnancy, and frequent bleeding and hemorrhage; the amount of fibrin in the blood seems out of proportion to what would be required for textural nutrition. Increase of fibrin is also accompanied with diminution of the red corpuscles; hence it appears probable that fibrin results from a solution of the blood corpuscles, conjoined with the effete matter derived from the secondary digestion of the tissues, which is not converted into albumen.

(*London Jour. Medicine.*)

IV.—*Medical Life in London.*

We have had occasion heretofore to allude to the habit which has prevailed of late years in this country, among writers in med cal journals, and speakers at medical gatherings, of disparaging the moral and educational standing of American practitioners. It is said that the ranks of the profession are filled by persons poorly educated; our medical schools are spoken of with contempt; the tendency to quackery both within and without the profession, is a constant theme of querulous complaint. In all these particulars a comparison with other countries, of American medicine, is frequently drawn, in which the latter is made to appear greatly inferior. Such a habit of self-depreciation has become so confirmed, that whatever may be the progress made on this side of the Atlantic, many, it is to be feared, under the influence of ideas that have been so much reiterated, will never have courage enough to feel, a national pride in whatever may be accomplished. A disposition to undervalue, in anticipation, any discovery or improvement originated in this country, is often apparent. An extract from a foreign journal, containing something new proposed by some one wholly unknown at this distance, not unfrequently passes current, or attracts attention; while a novelty, from a responsible source, which labors under the disadvantage of being a home production, may not only be overlooked, but, as it would seem, studiously kept out of sight. For example, a practitioner of long experience and high standing announces a new method of reducing dislocations of the hip joint, without the aid of pulleys, etc. He adduces several cases in which the plan has been successfully tried. It excites some attention, but chiefly by those who are anxious to prove that the author borrowed the idea from some one else. By some journalists and surgical teachers the subject meets with no notice whatever; they are not willing even to make trial of the plan, and considerable effort is necessary to bring it sufficiently before the profession to secure a sufficient number of cases for a fair experimental test of its merits. Even the great discovery of the employment of anæsthetic agents in surgery has met with an active opposition at home which it has not had to encounter abroad.

With the low estimation of American medicine, which appears to be cherished to a considerable extent among ourselves, it may contribute somewhat to a higher grade of self-respect to read what the profession of other countries say, not of us, but of themselves. With this view we quote a few paragraphs from a series of articles which have lately appeared in the Dublin Medical Press, headed, "Medical Life in London.' Speaking of medical students, the writer says:

"We said enough before perhaps as to the very insufficient education that medical students receive before they join the classes; it is not difficult now to perceive how likely they are to be misguided as to the true and noble calling in which they have embarked, by the ridiculous books and essays which fall in their way; the product of the overgrown trade in these commodities. Accordingly, one meets them constantly at Guy's, at King's and Bartholomew's, arguing, even with the chief men there, as to their convictions on mesmerism, the marvellous cures they had read by homœopathy. The trite creed of too many of these young men, that all physic is humbug—their knowledge of physic no doubt being very nonsensical—is due to the utterly absurd books they had been reading, the result of this frightful trading principle of the book trade, and the favoritism shown to special authors who happen to have money. * * * * In London the student sees the uneducated chemist and the College of Surgeons the only people making fortunes. He votes physic a bore; the College of Physicians, like the Court of Chancery, a great professional incubus to be avoided; advancement in professional life as impossible as the discovery on his own private account of perpetual motion. He knows half the money he has lost would get him a commission in the army, or set him up in a cotton mill. He has heard of Apothecaries' Hall; but on looking into the books, he thinks he might as well try to learn Dutch and Sanscrit, as Dr. Lindley's big words; he never does learn them, for he never learned Greek or Latin; he has been reading novels and the books about Egypt, and the salt cellars, or the latest rubbish sent with the author's compliments to his hospital library; three years, four and sometimes five, he spends in this mortifying way. In October he comes up, like all his fellow geese, poor fellow, to be plucked and to hear the introductory lectures, at which he is told his profession is all pleasantness and all its paths peace; that he

has only to follow the directions of each particular lecturer to make a solid fortune and gain a commanding corner in the temple of fame. If now he runs away without diploma or certificate and sets up a chemist's shop, he is safe; if he waits for academic honors and the College of Surgeon's soirees, he will rue it all the days of his life. Godfrey's cordial and chemicals carry the day; or if the trade in homœopathicals promises better, he has no scruples; for long since he has decided physic all humbug. Even Dr. Pereira, who is considered a Jew, and who, one would think, should make money, if any body did, out of medicine, is of opinion all English physic is nonsensical."

Of the profession he adds:

"We have just had a meeting of the Provincial Medical Association at Oxford; but with such a disjointed and dissociated mass as the profession in London, one looks in vain for any thing very enlivening at these gatherings. If one could read the signs of the times, or in any point of the professional zodiac, of a complete sweeping away of all present overgrown abuses, then might one indeed breathe freely the open air of heaven. Like the reform in its next door neighbor, Chancery, brought about by the pen of honest, thoughtful men like Dickens, perhaps other parts of Lincoln's-inn-fields will yet undergo some change for the better: and when the pepper boxes of the National Gallery at the West-end of London, the not very oderous or captivating abuses of the College of Physicians also next door, and two or three quack hospitals, are also removed, we may yet sing pæns of thanksgivings to what Mr. D'Israeli calls the spirit of the age. A member of the College of Physicians, may be sent to Newgate if he perpetrates the crime of consulting with the president or any member of any Dublin or Edinburg College of Physicians, or any other M. D. "whatsomnever;" but they have been known to send nice three cornered notes, appointing hours to meet fashionable homœopathists. At the soirees, also, one sees emblazoned in all the papers, the sorriest kind of tuft-hunting is had recourse to, and strangers of Rome, "Cretes and Arabians," any body and every body, but exactly those for whom one would think royal colleges, medical and chirurgical, were erected, are invited; the pleasant ultimate result of all such corporate bodies here, being, that all struggling medical men might as well have a millstone around their necks as the excruciatingly absurd care and patronage of these big buildings. With money, of course, young medical men in London will make a fortune. A slender apprenticeship to quackery, however, is as indispensable as kid gloves at the College of Physicians' tea parties. * * * If a man wishes to be happy and contented, and live among his patients, he will sedulously avoid all and each of these. If he is a quack, it is painful to repeat again, he is sure of a fortune. If he is honest, the millstone of the journals and colleges will be his destruction."

Again:

"The practice of physic and surgery in the hospitals is unexceptionable. The moral influence of the colleges and press out of doors, the most melancholy sham; quackery and trade existing in every department of the profession; but perhaps the lowest and the highest in the court and highest circles, and in the daily drudgery of the lowest or union practice among the poor, the experience of every disinterested man is against quackery."

We cannot, of course, vouch for the correctness of the representation of medical life in London, as given in the above quotations. With respect to this point, it is not to be forgotten that London and Dublin are different places, although situated in Great Britain. How much of the spirit of the articles referred to is due to rivalry of location, we cannot presume to say. We have given the quotations, in order that those of our readers who would be glad to think better of medical life in their own country, than they who appear to have a fondness for disparaging it, may be encouraged by the fact, that in the great English metropolis, a writer on the spot finds as much scope for animadversion and ridicule, as the warmest advocate for American inferiority could claim in behalf of the medical profession on this side of the Atlantic.

(*Buffalo Med. Jour.*)

V—DEATHS IN THE CITY OF PHILADELPHIA.

The following table exhibits the total number of deaths for 1852 in the city of Philadelphia. [*Med. Exam.*]

	Male.	Female	Total.
1. Endemic and Contagious Diseases, Zymotic or Epidemic,	1398	1837	2785
2. Uncertain or general seat, Sporadic diseases,	698	575	1273
4. The Nervous System	957	712	1669
5. Organs of Respiration,	1147	1025	2172
6. " Circulation,	114	105	219
7. Digestive Organs,	313	314	627
8 Urinary Organs,	28	4	32
9. Generative Organs,	8	104	112
10. Locomotive Organs,	26	20	46
11. Integumentary System,	9	9	18
12. Old Age,	57	135	192
13. External Causes,	240	82	322
Still Born,	293	323	516
Unknown,	149	126	275
Total deaths for 1852,	5437	4821	10258

VI—*Deaths in the city of Baltimore, (Md.) from January 1852 to January 1853.*

We are under obligations to Dr. J. Gilman for a copy of the Annual Report of the Commissioner of Health of the city of Baltimore, from which we glean the following:

Total deaths from all diseases for the year 1852, in the city of Baltimore, 5313; of which 348 were still-born; 339 died of cholera infantum; 728 of consumption; 551 of fevers; 314 of measles; 64 of small-pox; 174 of old age; and the balance of the usual diseases.

The deaths for each month were as follows: January 351; February 396; March 509; April 434; May 458; June 287; July 488; August 702; September 409; October 351; November 458; December 372. Total 5313. Not a single death by cholera is recorded.

VII.—*Essential Oil of Savine as an Emenagogue.*

Administered in the form of an injection by the rectum, Dr. Plagge asserts that the essential oil of savine acts as a certain, safe and powerful emenagogue. Eight or ten drops of the oil suspended in a three or four ounce fluid mixture, given per anum, rarely fail to re-establish the menstrual flux, where its suppression is not the effect of some organic disease of the uterus. (*Ibid.*)

VIII.—*Aconite a remedy for Acute Articular Rheumatism.*

A distinguished physician of the Hotel Dieu, France, recommends the alcoholic extract of aconite as a specific remedy for acute articular rheumatism. Given in the commencement of the attack, before the use of any other medicine, it cures the disease in five or six days, says this physician. Of the alcoholic extract, he gives it in the form of pills of 5 *centigrammes* each, and administers one, two or three per diem, as the case may seem to require. In the meantime, warm tea of elder flowers, and the like, are drank freely ; this determines a profuse perspiration, which speedily mitigates the violent symptoms. (*Ibid.*)

IX.—*Case of Dislocation of the Eye.*

BY DR. JAMESON.

Dr. Jameson, in a late discourse before the Surgical Society of Ireland, detailed the circumstances attending a dislocation of the eye, which had come under his observation in Mercer's Hospital, Dublin, of which institution he is Surgeon.

Peter Nowlan, aged 30, a powerfully able and muscular man, a corn porter' was admitted into Mercer's Hospital on the 3d of November last, at half past twelve o'clock at night. His wife informed me that he came home that evening at ten o'clock, in a most intoxicated condition, and while staggering about his room, he struck his right eye against a small iron hook or nail that was in a dresser, which entered at the outer angle of the upper eyelid of that side, and when she went to his assistance discovered his eye protruded from its socket. She was most anxious to remove him at once to the hospital, but could not succeed in prevailing on him to go until half past twelve at night, when in a few minutes after this I saw him.

He was very boisterous and unruly, had a large check apron held close up to his eye, which he kept constantly rubbing and pressing against it. On its being removed, he presented a most peculiar, and I might add, frightful appearance. There was the right eye protruded out of the orbit, firmly fixed and immovable, staring, elastic to the touch, and devoid of all power of vision. The cornea was dry, cloudy, and rather opaque, pupil moderately contracted, and uninfluenced by the light of a candle. There was no extravasation of blood, nor was there any vascularity of the conjunctiva, although its reflexion from the upper lid on the globe of the eye was partially torn through. The inferior margin of the upper lid was not visible, as it was placed behind the globe and spasmodically closed.

With difficulty I could get him restrained, as he was such a powerful man, but having accomplished it, I then, with two fingers of my left hand. elevated the upper lid, at the same time, with the finger and thumb of my right, pressed the ball of the eye, and immediately it was drawn back with a distinct snap, and the lids closed over its anterior surface. I now, for the first time, observed the small wound before alluded to, at the outer angle of the upper lid, but could not ascertain or form any conjecture at the time what amount of injury he might otherwise have sustained. I therefore had him conveyed to bed, and directed cold water to be assiduously applied to the part for the remainder of the night.

4th. The following morning, at visiting hour, we found him sober, but he did not recollect much of what had occurred. His eyelids were a little swollen ; there was some slight vascularity of the conjunctiva ; the cornea was clear, shining, and moist, and the tears ran down the cheek ; he could distinguish the day light ; complained of pain in the head, and a deep pain in the globe of the eye, with full pulse. He was ordered to have sixteen ounces of blood taken from his arm, bowels to be freely opened, and cold water to be continued to the part.

5th. Lids less tumid ; pain and vascularity of conjunctiva almost gone; complains of the sensation as if gravel were between the lids ; vision improved, but sees objects imperfectly, as through a thick haze. Ordered the tart. ant. mist., low diet, and the application of cold water to be continued to the part.

6th. All pain gone ; conjunctival vascularity less ; sensation as if gravel were beneath the lids gone ; vision nearly restored ; has completer power over all the motions of the eye. Continue all.

7th. Convalescent ; no suffusion ; no pain ; vision complete.

9th. Discharged cured.

The foregoing case I consider to be one of some interest, when we reflect on the novelty and nature of the accident, and the mode of its being inflicted. In the first instance, the great escape the orbital plate of the frontal bone had of being pierced, and consequent injury to the anterior lobe of the brain. Again, the length of time the cornea was left uncovered by the palpebræ, being two hours and a half, and all that time coarsely rubbed by the apron. The great state of tension the optic nerve must have been kept in without permanent loss of vison. The escape the muscular attachments had of being torn from their origins, which evidently must have been the case from the subsequent perfect control retained over all the motions of the eye, as soon as the very slight amount of inflammation produced by the accident was removed. The powerful contraction of the orbicularis muscle behind the globe, with the complete restoration of vision. And finally, the trifling amount of constitutional disturbance and local inflammation that followed what appeared to be at first so very grave an accident to so very delicate an organ. These, I say, are points which add considerably to the interest of the case.

(*Dublin Med. Press.*)

X.—*Iodine Injections of the Joints.*

BY M. VELPEAU.

Amongst the affections of the joints, effusion into them is a very common affection, but is only serious as a symptom of the disease which accompanies it. When it occurs as a serous interarticular effusion, without any marked material lesion, recent hydrops articuli is easily cured by rest, bleeding and topical applications, such as solutions containing muriate of ammonia or chloride of sodium. When the effusion resists these means, M. Velpeau applies a large

fly blister, repeated every fifteen days, and then uses frictions, with mercurial or iodide of lead ointment (the latter being preferable to the iodide of potash), aided by compression, the administration of calomel in small doses, and especially rest.

There is another remedy now used, namely, the injection of tincture of iodine. M. Velpeau has only tried it twice this year, but from these two cases it is plain that the injection thus used is neither very painful nor dangerous, and that when thus cured the joint is not anchylosed. In one very bad case, particularly, the injection was not more painful than when used for the cure of hydrocele, and succeeded where the other means referred to had failed. It is necessary that the treatment by iodine injection should be made more generally known, as it is not usually practised. The two points which deter surgeons from practising it are, the fear of throwing an irritating fluid into a large joint, and of anchylosis taking place in case of success.

Now, both of these dangers are imaginary. There is no previous incision, but a simple puncture made. Since 1839, M. Velpeau has used this plan 25 times, M. Bonnet perhaps as often, so that with cases of the same kind, related by Berard, and since by M. Jobert, Malgaigne, and other surgeons, there are more than one hundred cases of these joints having been punctured and treated by the iodine injection, and none of the patients have had any unfavorable symptom. The swelling, with slight redness, which appears after the operation, only shows that a natural process is going on, such as takes place in hydrocele, and is resolved without the application of leeches, etc.

As to the danger of anchylosis, it is equally imaginary. M. Velpeau has seen these patients long after the operation, and in all the movements of the joints were preserved. It is in fact in these cases, as in hydrocele, the cure can be effected without the obliteration of the serous sac; or, if adhesions take place, they yield after a time, and the function of the joint is restored, so that this is no serious objection; and, as on the other hand, there is complete cure in one half the cases, and very marked amelioration in the other, it is to be concluded that the iodine injection, under such circumstances, when as yet there is no induration, is suitable, and the more so, as its use does not prevent that of other accessory means of cure.

(*Presse Medicale de Belge.*)

XI.—*Causes of Yellow Fever.*

In the January number of the Charleston Medical Review, Dr. Hume of that city has prepared an elaborate article on the causes of yellow fever, abounding in meteorological and statistical tables, which are quite interesting. Like similar efforts made in this city, on the same subject, they only prove that "cool nights, warm days, and a high dew point, are the meteorological characteristics of a yellow fever summer in Charleston. Warm nights, warm or cool days, and a low dew point, are the concomitants of a non-yellow fever summer."

Well be these things thus! Can we warm the atmosphere by night, or cool it by day? Can we lower the dew point, and by this means stay the irruption of an epidemic? No. The combination of phenomena which produces the yellow fever, is utterly beyond the control of mortal man.

XII.—*M. Bouchardat on the treatment of Diabetes.*

As long as the urine exhibits sugar, all feculant and saccharine aliments must be strictly interdicted; the flesh of *carnivorous* (!) animals, M. Bouchardat declares, is the best. This diet has been resorted to by the poor, afflicted with the disease, and with immediate and marked improvement. Fish, with oil and vinegar, may be allowed to both rich and poor, with advantage. Eggs and cheese constitute an excellent diet in diabetes; and green vegetables and salads may be eaten in moderate quantities. Fatty substances and alcoholic drinks should hold a high place in the diet of the diabetics. Beer is objectionable, because it contains dextrine; but coffee, without milk or sugar, and to which a little brandy is added, is an excellent drink; but all acid drinks are extremely hurtful. In the meantime, flannel should be worn next to the skin; and gentle exercise in the open air hastens recovery. As a medicine, M. B. prefers the *carbonate of ammonia*, aided occasionally with some diaphoretic, such as Dover powder, and the like. (*Abridged by Ed. N. O. Med. and Surg. Jour. from Jan. No.* 1853 *of Med. Chirurg. Review.*)

XIII.—*On the Specific Gravity of the Brain.*

In an elaborate article on this subject, published in the January number of the British and Foreign Medico-Chirurgical Review, and written by Dr. Sankey, we copy the analysis of 77 observations made upon the specific gravity of the brain, which would serve to justify the following general observations: That the mean specific gravity of the grey matter, in either sex, is 1.034; that the density of the grey matter is somewhat below the mean in the earlier and later periods of life; that the highest density is met with between the ages of fifteen and 30 years in males, and between twenty and thirty years in females; that the density of the grey matter is, in a slight degree, lower in those persons who have died after a long illness, and greater, to a slight extent, in those subjects examined before twelve hours after death than in those examined at later periods. That the density of the grey matter may be found in a subject after death to be .006 below the mean, without any cerebral symptoms having been present during life; but when the specific gravity exceeds the mean by .006, then one of the following conditions has existed during life, viz: Either acute cerebral disease, attended with head sympathies of the gravest character, or chronic disease, attended either with no cerebral symptoms, or only with slight delirium.

That the mean specific gravity of the white matter after death is 1.041; that its density varies less than that of the grey in the sexes, or in the different periods of life; that it is much less affected by post mortem changes or length of the last illness. That in those cases in which the gravest cerebral symptoms were present during life, the density of the white matter after death may present two opposite conditions; either it may exceed the average, or it may be much below the mean.

That high specific gravity of both grey and white matter is found in con-

junction with those morbid conditions of the brain connected with the hyperæmia, and that a low specific gravity exists in conjunction with the opposite condition of the brain.

That no relation appears to exist between the specific gravity and the actual weight of the brain.

XIV.—*Iodide of Potassium a remedy for the affections caused by lead and mercury.*

We find in the January number of the London edition of the British and Foreign Medico-Chirurgical Review, a very valuable paper under the above head, first published by M. Melsens, in the *Annales de Chimie et de Physique.* By a series of experiments on man and dogs, conducted with great care, with the results accurately noted, M. Melsens has conclusively shown, that the iodide of potassium is not only a safe, certain and radical cure for the common forms of *saturnine* and *mercurial* poisoning, but an equally sure preventive of the injurious effects so frequently produced by emanations from lead and mercury. M. M. assumes, that in all cases of lead and mercurial poisoning, the metallic substance is in actual union with the affected part or parts, and is there retained in the form of some *insoluble* compound. He believes that in these instances the iodide of potassium, after it reaches the circulation, combines with the metallic poison, and forms with it a new and *soluble* salt; liberates the poison from its union with the part or parts, dissolves it, and thus suffers it to again enter the circulation. Once in the circulating fluids, (in the form of a double iodide of mercury and potassium) M. Melsens supposes these metals to be eliminated from the blood and tissues through the kidneys, nearly as soon as formed, in combination with any excess of the iodide that may chance to be present.

M. Melsens details a number of cases of mercurial poisoning, in which the iodide produced a rapid and permanent cure; and in some instances, the elimination of the mercury by the kidneys was positively ascertained by reagents. Most of us have had evidences of the anti-mercurial influence of the iodide of potassium upon the human subject; we have seen persons who had been the victims of mercurial poisoning, after taking the potash a short time, become profusely salivated. Does not this fact demonstrate that the potash liberates the mercury from the tissues, throws it into the circulation, and leaves it free to act on the glandular system?

M. Melsens has proven, by repeated experiment, that if to a dog that has been for some time under the poisonous influence of sulphate of lead, iodide of potassium be administered suddenly in pretty large doses, death will ensue. If on the contrary, the two drugs be given concurrently, the dog will suffer no harm. Iodide of potassium may therefore be employed as a prophylactic in lead-poisoning.

(*Condensed by Ed. N. O. Med. and Surg. Jour.*)

REPORT OF THE UNITED STATES MARINE HOSPITAL,

For the year ending December 31st, 1852.

P. B. M'KELVEY, Principal Physician and Surgeon.

Diseases, disch'd of, in	January.	February	March	April	May	June	July	August	Septbr.	October	Novbr.	Decbr.	Total
Abscess		2	4	3	2	1				2	3	1	18
Amaurosis	1				1								2
Anchylosis	1	1											2
Ascites		1	1	1		1			1	2	1	1	9
Anemia	1		1				1						3
Bronchitis	2	6	4	1	3	4	4	3		5	4	6	42
Burns		1			1								2
Coup de Soleil								2					2
Contusions	4	4	4	1	3	2	5		1		4	8	36
Chilblains		3											3
Cataract		1											1
Carbuncle			1	1	2				2				6
Condylomata			2		1								3
Colic, Bilious				1	1	1	1		5	3		2	14
Colic, Pictonum						2			2	3		1	8
Cholera, Asphyxia						3							3
Caries, Sub. Max.							1		1				2
Constipation							1		2		1		4
Catarrh, Pulmon.									1				1
Diarrhœa,	9	9	10	12	9	16	10	9	9	7	6	13	119
Dysentery	1			1		1		4					7
Debility, General		1	1			2			1		4	2	11
Delirium Tremens				1									1
Dislocation, Wrist					1								1
do. Radius						1							1
Dyspepsia									2				2
Erysipelas	1		1		1					1	1	1	6
Fever, Intermittent	13	11	20	16	8	29	40	43	68	47	35	44	434
do. Remittent	1	2	12	2	3	9	1	7	12	13	9	4	75
do. Typhoid	2	3	3	5	5	7	9	21	10	11	15	9	100
do. Yellow									1	6	15	6	28
do. Congestive								1	1				2
Fracture of Rib	1	1											2
do Clavicle	3	1	2		1	1						1	9
do Tibia			1			1			1	1	1		5
Fistula in Ano		1							1	2			4
Gonorrhœa	12	7	7	6	5	9	4	4	2	5	3	6	70
Gastrodynia	1			1								1	3
Gastro Enter.											1		1
Hernia		1			1			1	1				4
Hydrocele	1							1					2
Hepatis, chronic			1								1		2
Hypertrophy of Spleen	1					1				1	1		4
Injuries		3	2					1	1		1	3	11
Iritis	1	2	6	1	2	1	1					1	15
Intemperance		2			1					1			4
Icterus							1	1		1	2	1	6
Lumbago							1						1
Neuralgia	1	2								1			4

Diseases, disch'd of, in	January.	February	March	April	May	June	July	August	Septbr.	October	Novbr.	Decbr.	Total
Neurosis		1	1										2
Orchitis	1		3	2	1		2	1	1	2	2		15
Opthalmia				3	1		2	2	2	1		1	12
Paralysis, Partial		2	2	1	1			1		1	2		10
Phthisis Pulmonalis		3	2	4	4	4	4		3	4	5	3	36
Pneumonia					1				1		1	3	6
Paronchia	2	1	1	2	5	5	1	4	3	1	1	5	26
Pleuritis		2				1						2	5
Ptyalism							1						1
Rheumatism	17	16	15	19	24	11	12	10	15	21	21	18	189
Rubeola		1	1										2
Syphilis	28	23	23	17	22	29	20	11	18	22	30	23	266
Spine, Injuries of			1										1
Scald	1		1										2
Stricture, Urethra	1	3	2		3	2	1			2	1		15
Scrofula						1			1				2
Schirrhus, Test	1												1
Tumor		1	1					2		1			5
Ulcers	5	5	7	5	7	6	5	8	5	16	4	5	78
Variola confluens						2							2
Wounds, Incised	1		2	1			1			1	2	1	9
do. Punct.	1							1				2	4
do. Contused	5	7	4	1	1	3	4	1	1	2			29
	120	130	151	110	111	151	134	139	174	186	177	175	1758
Died of, in													
Abscess of Liver	1				1								2
Ascites										1		1	2
Brain, Congestion of							1	1	1		1		4
Cholera Asphyxia					2	1					2		5
Dysentery, chronic	1	2	1			1				3		1	9
Diarrhœa	1		1		2	1					2	3	10
Epilepsy					1								1
Erysipelas										1	1		2
Fever, Typhoid	1			3	1		2	2	1	4	4	2	20
do. Yellow									1	7	8	8	24
do Congestive									1	1			2
Gastro Duod.		1											1
Hydrothorax				1									1
Heart, disease of						1						1	2
Hepatis, chronic						1							1
Phthisis Pulmonalis		1	2	4	1			2	1	1		1	13
Pneumonia, Typh.			1										1
Peritonitis													0
Injuries										1	1		2
Injuries of Spine						1			1				2
Suicide						1							1
Syphilis								1					1
Tetanus, traumatic									1				1
	4	4	5	8	8	7	3	6	7	19	16	17	107

RECAPITULATION.

Remaining in the Hospital January 1st, 1852, 99

	Admitted.	*Discharged.*	*Died.*
First quarter,	409	401	13
Second quarter,	398	372	23
Third quarter,	467	447	16
Fourth quarter,	592	538	52
Total,	1866	1758	104
Remaining Jan. 1st, 1852,	99	104	
	1965	1862	
	1862		

103 remaining Jan. 1st, 1853.

J. W. BREEDLOVE, Phys., &c.

XVI.—*On the treatment of Mental Alienation.*

In some observations on the treatment of Mental Alienation, M. Ph. Pinel states that a large number of medical men recognize the utility of baths and the necessity of prolonging their influence, especially in cases of mania, but that at present they are prolonged for only a few hours. M. P. recommends that the patient should be confined in a bath, of a suitable temperature, from one to twenty-four hours, with gentle irrigations directed upon the head all the while, with occasional interruptions. Baths, he remarks, of that duration, the temperature of which may be too high or too low, are rather hurtful than useful in these cases.

Baths frequently repeated, without effusions or constant sprinklings, increase rather than diminish the cerebral symptoms. Prolonged tepid baths and sprinklings are, beyond a doubt, the best means that can be resorted to in the treatment of the acute forms of insanity, not only in mania, but likewise in the different species of partial delirium. He states that he has treated in this manner 157 patients, classed as follows:

Maniacal delirium 57; hyperamia 38; delirium without melancholia 20; suicidal delirium 24; *delirium tremens* 16; erotomania 5; total 157, of whom 91 were males, and 66 females.

The following results have been recorded: No change 4; deaths 7; improvement 21; under treatment 4; cured 125. Of the 127 patients who were thus treated, 125, or four fifths, were cured.

The New-Orleans Medical and Surgical Journal.

Vol. IX.] NEW-ORLEANS, MARCH 1, 1853. [No. 5.

HEALTH, MORTALITY, &c.

The past winter has been, we believe, unusually dry for this climate, although we had our usual sudden atmospheric changes. We cannot recall a single corresponding season during which we have seen and heard of less serious sickness; indeed, with the exception of slight catarrhal affections, to which we alluded in our January number, we have had less winter disease than usual in our city. Of the exanthema, we have had less than at any season within our recollection; true, we have met with a sporadic case of variola, rubeola and scarlatina, but in these instances the disease confined itself to a few isolated localities, or widely-separated families, or was introduced into the city from abroad. In no instance have they been propagated much beyond the individuals whom the disease first invaded. The attention now paid to vaccination, thanks to the immortal Jenner, has, in a great measure, placed small-pox *hors de combat*, and effectually checked the spread of this loathsome disease. We will embrace this occasion to urge upon those who may have received the protecting power of vaccination at some antecedent period, the absolute necessity of being re-vaccinated once at least every few years, more particularly if likely to be exposed to the contagion. Writers who have examined the question of re-vaccination, urge this precautionary measure in every instance.

Typhoid, or continued fever, as it has been recently designated, and now exciting so much interest in the South, has been less prevalent, we believe, than usual, both in private and hospital practice, the past winter; in fact, it has been witnessed more as a complication of other diseases, than a primary affection. The cases thus far have been, in most instances, benign and manageable, under a plan of treatment partly *expectant* and partly *abortive*. We have seen a few cases, complicated with pneumonia, which terminated in profuse hemorrhage and death; in one instance, the patient was about to enter the stage of convalescence, when he was seized with nasal hemorrhage, and sank in a few hours, in spite of stimulants, styptics, etc. This case had been for several days partially under the influence of mercury, and hence perhaps the tendency to the bloody exudations.

Scarlatina has prevailed to some extent in certain sections of the city; still the mortality from this disease has not been great, according to our weekly returns.

Measles, although somewhat common, yet it has been of a very mild form, seldom requiring the services of a Physician.

We have noticed that among the causes of deaths, *Phthisis* is the highest on the list. This fact arises from the great number of individuals, laboring under this disease, who visit our city in the winter season in search of a more uniform climate, and succumb here to the ravages of the disease. In asserting this fact, we do not wish to be understood as denying the development of phthisis

among our resident, permanent population; we have witnessed it in the native born Louisianian, whether of Anglo-American, French, Spanish or German parentage. It is not infrequent among our slave population; and those of mixed blood, mulattoes, etc., are peculiarly liable to pulmonary diseases in this climate. Of this fact we could advance abundant evidence; and we refer to our bills of mortality to bear us out in the assertion.

We here append our weekly mortality since our January publication.

DEATHS IN THE CITY OF NEW ORLEANS,

For the 9 *weeks ending Feb.* 19*th*, 1853.

		Cholera.	*Fevers.*		*Total.*
1852	Dec. 25th	16	30		155
1853	Jan. 1st,	19	19	[Y. Fev. 2]	148
	" 8th,	9	15		148
	" 15th,	12	25		136
	" 22d,	6	13		134
	" 29th,	2	14		110
	Feb. 5th	2	21	[Y. Fev. 1]	39
	" 12th,	2	17		118
	" 19th,	1	10		130
	Total,	69	164		1218

Of the foregoing 460 were under 10 years of age, and 248 were colored.

Compare the deaths for the *nine weeks* ending December 18, 1852, published in the *January* number, with the deaths for the same period, ending *February* 19th, 1853, and we have for the former 247 deaths by cholera, against 69; and 517 by fevers, against 164; and a grand total of 1786, against 1218. These figures certainly exhibit a vast reduction in our mortality for the past eight or nine weeks; and when we regard the immense population now in New Orleans, both floating and permanent, we are no less surprised than gratified at the sanitary condition to which our city has attained.

A CASE OF INTESTINAL OBSTRUCTION—DEATH—POST-MORTEM.

On the 25th November, 1852, Wm. Coleman, ætat. 18, entered Ward No.12, Charity Hospital, complaining of intestinal pains of a griping character. He was pale and rather emaciated; countenance anxious; abdomen enormously distended and tympanitic; no pain on pressure; pulse feeble and frequent. No operation from his bowels for several days; loss of appetite; frequent vomiting. Was ordered a cathartic enema, effervescent draught, and sinapised cataplasm to epigastrium.

On the 18th of November the vomiting ceased; in other respects the same. Was ordered an enema of warm water.

November 29th, much the same. Ordered *ol. ricini* f ℥ ij, mucil. g. acac. f ℥ iv. M.; to be taken by enema.

November 30th. No change in the features of the case. Ordered a full warm bath; also take an injection of warm water.

December 1st. Had a partial operation from bowels, with some relief. Ordered wine.

No change December 2d, when he was ordered an ounce of castor oil.

On the 3d, took an ounce of sulph. magnesia; warm bath repeated; anodyne poultice to abdomen. Repeat enema of tepid water.

On the 4th December had a slight dejection; repeat the castor oil. The case continued unrelieved in spite of repeated warm baths, cath. enematas of castor oil and oil Tereb. up to the 18th December, when growing worse he was ordered the following:

℞	Pulv. Jalap,	℈ i	
	Hydrarg. Chl. Mit.	gr. xv	
	Pulv. Ipecac,	gr. ii	M.

Take at once.

During the night of the 18th December he expired, and twelve hours after death, the post-mortem revealed the following state of the parts affected: Found the small intestines, on laying open the abdomen, together with the cœcum, ascending and descending colon, enormously distended with gas and fœces. The descending colon, greatly atrophied, was bound down by bands of organized lymph to the third and fourth lumbar vertebræ, at which point intussusception was found to exist. The stomach was atrophied, and presented traces of chronic inflammation. Mesenteric glands very much enlarged. Liver likewise reduced below its natural size and darker than natural. Beyond this the examination was not carried.

We are indebted to Mr. Newsom, long a resident student of the Hospital, for the preceding particulars.

Remarks.—The post-mortem is defective, as it appears the intestines were not laid open to ascertain the precise condition of the parts involved. We have nevertheless thought proper to introduce the case, to serve as a basis for a few unconnected observations. We would remark in the first place, that the practice of ordering repeated doses of active purgative medicines, in cases where *intestinal obstruction* is suspected, is generally inoperative, and must ultimately end in aggravating the symptoms. Free depletion, both local and general, when the pulse (which is often deceptive in such cases) and other symptoms seem to call for the loss of blood, should begin the treatment in cases of suspected intestinal obstructions. Having executed this, our first duty, and thus met the most prominent indications, we may—nay, must, resort to full doses of opium or morphine, to favor the relaxation of the muscular coat of the intestines. This done, a purgative both by the mouth and rectum, may determine copious alvine discharges, and relieve the urgent symptoms. To continue to fret the stomach and irritate the bowels by repeated doses of drastic purgatives, is contrary to the best established principles of pathology, and must aggravate the evils which they are intended to remove.

Some years since, we were requested by a distinguished Physician of this city to see a case in consultation, of supposed intussusception of the bowels. Cups, leeches, and vesication, together with purgatives, including repeated doses of Croton Oil, had been administered by mouth and rectum, but without the slightest good effect. Seven or eight days had elapsed under this treatment, without relief; the countenance was anxious, decomposed; the pulse small and thready; the skin cold, and bathed in a cold, clammy sweat; the extremities, both upper and lower, shrunken and icy cold. Having seen, about this time, some remarks in a late Dublin Medical Journal, on the success attending the inflation of the bowels, under similar circumstances, it was determined to give it a trial in this case. Accordingly, a gum elastic tube was introduced high up the rectum, and the bowels were pumped full of atmospheric air. In a few minutes the abdomen was greatly distended, and the dying patient cried "hold, enough;" when scarcely had the instrument been withdrawn, before the sufferer evacuated an immense quantity of dark fœtid fæces, followed by instantaneous relief of all the unfavorable symptoms The pulse rose, the skin became uniformly warm and lively, the countenance calm and natural, and the patient convalesced rapidly from that hour.

The modus operandi of this mechanical agent will suggest itself to every reflecting mind.

(*Ed. N. O. Med. and Surg. Jour.*)

CAUTERIZATION OF THE LARYNX IN EPILEPSY.

A. Hester, M. D.

Having seen an article in the last number of "Braithwaite's Retrospect," "On the relation of Laryngismus to Epilepsy," by Dr. E. Watson of Glasgow, I send you a notice merely of other cases of laryngismus, treated in like manner, about the same time, without either of the Physicians knowing of the application of the same treatment by the other. I do this at this time, as it may induce other Physicians to try the remedy, which is in itself innocent, but may be the means of destroying, or partially relieving, one of the direst evils which afflicts the human race.

While associated with Doctor Horace Green, of New York, I treated, in connection with him a severe case of Epilepsy of more than twenty years standing. The patient came to us for an acute affection of the throat, and was at the time subject to from three to five attacks of Epilepsy every day. His situation was most deplorable; his intellect was gradually giving away; and from the nature of the disease, he had become an object of fear to most of his acquaintances. The application of a strong solution of nitrate of silver was made to his larynx and trachea, with immediate cessation of his Epileptic attack, which did not occur again for ten days, the application being continued daily. A periodic tendency seemed to be established at that time, the period of intermis-

sion being that of ten days, and the paroxysm continuing three days, when he had two or three fits each day.

I left New York while he was still under treatment, but have been informed by letter from Dr. Green, that the periods were lengthened to twenty days, "when there is a strong tendency to their return, but a few strong applications through the *trachea* will arrest them without fail."

Two other cases are now being treated by Dr. H. J. Bowditch, of Boston, who had seen the treatment of the above case in Dr. Green's office,—and with like success. In reference to them, Dr. Green writes me, that "one, a lady, subject to the disease for eleven years, and who had become demented, has had the fits so far arrested by *cauterizing the larynx*, that her mind had been restored, and that she is in every respect better."

The case treated by Dr. Green will be reported in detail, in the forthcoming number of Dr. Rees's Journal, but I feel persuaded that my giving you these few facts alone, will perhaps attract the attention of the profession at the South, and elicit eventually some important facts which the application of this remedy will bring out upon the treatment of this terrible disease.

J. HANCOCK DOUGLAS, M.D.

New Orleans, February 18, 1853.

TRACHEOTOMY PERFORMED WITH SUCCESS.

BY DR. FOSTER

Resident Surgeon of the Charity Hospital.

An Italian fruiterer, ætat. forty-five, being constantly exposed, in conducting his business, was attacked with laryngitis about the latter part of December, and on the 31st was admitted into the Charity Hospital. Complained of much pain and tenderness over the larynx, attended with dyspnœa and asphyxia, hoarseness, inflamed fauces, etc. Was treated with tartarized antimony; and had his fauces touched with a strong solution of argent. nit. The day after his admission, the dyspnœa became intense, with aggravation of all the symptoms. Was now ordered gr. v calomel; morphia one sixth gr. every hour. Repeat the cauterization.

On the afternoon of same day, second after admission, there being no abatement of symptoms, to which was now added lividity of face and lips, the operation of Tracheotomy was deemed imperative, and was accordingly promptly performed by Dr. Foster, the House Surgeon. The venous hemorrhage was profuse; but soon subsided after the trachea was opened. An "*ovate curved canula* was placed in the opening, and within *this one of smaller size*," which can be easily removed when it becomes obstructed with mucus. On the third day both canulas were removed. Fifteen days after admission, the patient was discharged cured.

A CASE OF SECONDARY HEMORRHAGE,

Occurring three weeks after a natural labor,—caused by a Polypus within the Uterus.

BY D. MACGIBBON, M. D., NEW ORLEANS.

On the 24th of December last, I was called to attend Mrs. B——, a young married lady, who was in labor with her first child. The labor was a natural one; and was conducted while she was under the influence of chloroform. The placenta came away, without any interference, in the usual time. Her recovery was very satisfactory. She was up on the sixth day, contrary to my advice, she felt so well.

On the 3d January I was again called to see her. She was suffering with a high fever; and had a rash out on her face, breast and arms, with crescentic spots of healthy cuticle here and there intervening, which left no doubt on my mind that she had the measles; how she caught the infection is still a mystery to her. She soon recovered from this attack, and was seemingly doing well. On the 21st January I was called on by her husband, at a late hour, who mentioned, that for the two preceding days some blood had come from her vagina; and at times so freely, that it stained through her body clothes in a short period; also that she had for some days back been troubled with diarrhœa, which was now severe, with pains coming and going, that caused her a good deal of suffering. To check the hemorrhage and diarrhœa, I prescribed Plumbi Acetas with Morphiæ Acetas, dissolved in the camphor mixture, with a portion of acetic acid, to be taken every hour till I should see her; and to have cloths wrung out of cold water constantly applied to the lower part of the abdomen—she keeping the horizontal posture. The following morning I found her improved; all her symptoms had abated since she began the medicine. She was much blanched, and it was evident, both from this and her description, that she had lost a good deal of blood. She was fair complexioned and delicate looking at the best, and I may here remark, that she had suffered a good deal from "sickness" in pregnancy, and also from two falls, which hurt her left side. The last accident occurred when within two months of confinement, and had left a tender spot on the uterine enlargement, which had caused her a good deal of suffering. There was also a fixed swelling at this point, according to her report; but that I could not detect, when I felt for it on the occasion of my first visit, when the above circumstances were related. The uterine action present might have caused its disappearance. Be that as it may, from her having gone the full period, I was inclined to believe, that beyond what she had already suffered, much harm had not been done. This was strengthened by the labor proving a natural one; and had not the occurrence of secondary hemorrhage, at this late period, three weeks after confinement, served to recall the circumstances, they would have passed from my memory.

But to return. On examination per vagina, the uterus was found prolapsed, and the os dilated so as to admit the point of the finger. A tender point was also found on the left side, at the juncture of the cervix with the body. The

vagina was soft and relaxed. The finger, when withdrawn, was stained with blood. The pulse was not disturbed.

With the use of the above medicine, and a solution of alum, which was injected twice daily, the discharge gradually lessened and became paler in color, so that on the 26th it had all but disappeared; when the Sesqui-chlorate Ferri, as a useful tonic and astringent, was ordered her, in place of the former medicine.

On the 27th I was called hastily to see her. Hemorrhage more severe than ever had come on while she was asleep, and had greatly prostrated her. The os uteri was dilated so that I could get my finger within the os internum; and at this situation my finger could detect a small elongated body, coming down from the body of the uterus, but too high for me to reach its attachment or base. This, I concluded, must be a small fibrous polypus, and mentioned what my suspicions were.

To assist in checking the hemorrhage and expelling this foreign body, I put her on the wine of Ergot; and if possible to prevent any further flooding, the vagina was plugged. She was ordered to have port wine freely, with light nourishing food.

There was no return of hemorrhage, but a saneous discharge, which had an offensive odor, remained for several days. The following notes, which I extract, will best describe her condition from this period, when her symptoms became greatly aggravated.

Feb. 2. The husband called on me this morning, prior to my visit, and mentioned that she had felt much disturbed all night; besides the previous pains in the abdomen, she had much irritation of stomach, and had been vomiting a good deal; ordered her the following medicine:

℞	Sulph. Morph.	gr. ii	
	Acidi Hydrocy. dil.	gtt. xxiv	
	Aqua Cinnam.	℥ iss	M.

A teaspoonful every hour as long as the pain and vomiting continue.

I saw her shortly after, and found her moaning and complaining much of a steady pain about the umbilicus and in the back; tongue also with more of a yellowish coating. She had not a passage from her bowels the last twenty-four hours, and a gentle cathartic enema was administered to relieve them. The above medicine was continued, and a liniment, consisting of two fluid ounces of chloroform, and one ounce of pulverized spermaceti, was to be applied to the parts where the greatest uneasiness should be felt. She was evidently much distressed, and this, with the want of proper rest during the night, had exhausted her a good deal. She had hitherto continued to suckle her child, but that is to be given up. Iced milk for diet, but she does not care much for any thing.

At 3 P. M. I again saw her. The enema had brought away some feculent

matter; and she passed from her vagina a white body, not easily broken up, about the length of her little finger, and smaller in diameter. This, which she intended to keep till I should see it, was inadvertently thrown out by the nurse; but from the minute description she gave of it, I have little doubt it was a small fibrous polypus from the cavity of the uterus, as suspected. Since she began the medicine and liniment all her symptoms are greatly relieved, and she feels more cheerful. Slight vomiting occasionally occurs, and that which is ejected is greenish looking and bitter. No tampoon had been in the last two days. Discharge the same as previously.

3*d*. She suffered a good deal from pains in lower portion of abdomen and small of back all night, and rested but little.

The liniment was occasionally applied, but she did not use much of the morphine solution. She complained of this and other things burning her stomach. Is much exhausted looking, and tosses about, moaning "oh Lord." Her pulse is 84, and regular; in no way indicative of inflammatory action, though she wont believe but her inside is being destroyed, and that she wont recover. Ordered her to get port wine negus freely. This she previously took readily, but the last day or so refused. After partaking of the wine and the morphine solution; and getting an enema containing a teaspoonful of laudanum in three ounces of starch mucilage, to assist in allaying the uterine irritation, her symptoms abated, and she revived some in spirits. Viewing the case as one to be treated with narcotics, to allay the nervous derangements consequent on the uterine disease, till this is thrown off, I determined to give them freely. As, however, the morphine does not suit the present congested state of the stomach so well, and one grain doses of that are now required to produce much effect, I ordered the Indian Hemp to be substituted; one scruple of the extract to be dissolved in half an ounce of strong alcohol, and fifteen drops of this to be administered in a little water every hour, till her symptoms be relieved. The wine and the iced milk to be continued; and the liniment as before externally.

I saw her again in the afternoon, and found that the Indian Hemp (obtained from Sickles) had immediately soothed all her sufferings. She slept a good deal; but would occasionally wake up—complain of pains—ask for her drops, and go to sleep quietly. She continued this medicine in the same doses freely for three or four days after this; during which she consumed nearly two scruples of it, without its giving rise to any headache or other annoyance. She seemed to be again doing well; the discharge had all but disappeared; the os felt normal, and the tender point left. The tongue, however, remained stil coated, and her appetite did not improve much.

On the 8th her symptoms again became aggravated. She had pains in all her former quarters, and now these extended up to the mammæ also. She had been up for a short time the preceding day, and I suspect this had something to do with the relapse. She was suffering at my visit very much. The Indian Hemp was again resorted to, and in twenty drop doses, as in the former quantity it did not sooth as at first. This, with an anodyne enema, and the liniment

externally, soon relieved her, and in a few hours she was much better. Her pains, like all neuralgic pains, had from the first been more or less intermittent in character.

On the 13th, she was so far improved in general health as to be up and moving about her room, with all her feelings better than they had been since her accouchement.

With careful nursing she soon became restored in health and strength. She continued the iron drops, and this, with nourishment, enriched the blood, and brought back some color to her lips and cheeks. The milk also returned, though not in quantity sufficient to satisfy her child's wants, who, with its mother, promises, to all appearance, to do well.

New Orleans, February 21st, 1853.

MORTALITY IN THE UNITED STATES NAVY.

Recent intelligence, gleaned from the daily prints, notify us that our naval vessels, stationed at Barbadoes, have been severely scourged by the yellow fever. The steam frigate Dauntless lost in a few days of the fever eighteen officers and ninety men—a fearful mortality for the crew of a single vessel. Our government, when about to order our nautical vessels to stations subject to the ravages of yellow fever, or any other violent disease, peculiar to tropical latitudes, should take the precaution to select such medical officers as may have *practical* knowledge of the character and treatment found by personal experience and observation, best adapted to such cases. However well qualified and otherwise skilful in the *general* practice of physic and surgery, they must have some experience in the treatment of yellow fever, and other tropical diseases, to meet and contend successfully with them at the bedside. The fearful mortality recorded above, should direct the attention of the Secretary of the Navy, or at least the Chief of the Navy Medical Board, to this important subject. It is a question of life and death to our brave seamen and gallant naval officers; and without aiming to detract in the least from the high attainments of the naval medical staff, we feel satisfied that the welfare of the service and the interests of humanity would both be promoted by selecting medical men *practically* acquainted with yellow fever, to take charge of such vessels as may be ordered to stations where this and kindred fevers are known to prevail.

LOUISIANA STATE MEDICAL SOCIETY.

Whilst directing the attention of the Physicians of Louisiana to the "Circular" of the President of this Society, (inserted among our advertisements) we embrace the occasion to urge upon the Medical Faculty of this State, the necessity of sending at least one representative for each parish. We invite all who can leave their homes, to be present on that day, and take part in the deliberations of the Society.

PROSPECTUS OF MASSIE'S ECLECTIC SOUTHERN PRACTICE.

We are gratified to perceive, from the "Prospectus" before us, that we are about to be favored with a work on the Diseases of the Sonth, by a gentleman every way competent for the undertaking. Dr. Massie, of Texas, has been solicited by a large number of his brother practitioners, who are well acquainted with his high qualifications, to write a work on the Theory and Practice of Medicine—a work "presenting the various modifications which diseases assume in Texas" (and the South generally.—*Ed.*) The material for such a work is varied, abundant, and needs but some skilful hand to gather the rich harvest which is now ripe, to digest and arrange it for our common profession. As yet little has been done, save through the pages of a few medical periodicals, to advance, in the estimation of our cotemporaries, the science of Medicine in the South. For works, whether in Surgery or the Practice of Medicine, we have heretofore looked to friends of the North and of Europe; when we should begin to put forth our own efforts, and build up a system of practice adapted to our climate, the peculiar nature of our diseases, and the wants of the profession. Facts in abundance are at hand, as rich as they are diversified—diseases unknown to other latitudes and other climes daily fall under our observation, and demand our care, yet we have but few records, and no standard work, to which we can turn for instruction and advice, treating of our peculiar diseases, in times of doubt and difficulty. To possess a work embodying the history, the peculiar features of our epidemic and endemic diseases, and also their pathology and therapeutics, is indeed a desideratum which has long been felt by the profession throughout the South. We are rejoiced, therefore, to learn that a Physician—a man of, and belonging to us—one of extensive experience, enlarged and liberal views—of much reading and reflection—a scholar, in short, is about to undertake to supply this desideratum to the profession.

The work will be brought out in the course of twelve months, at least, the price of which will be fixed at five dollors per copy.

We look forward to the appearance of Dr. Massie's new work with unusual interest, and shall hail its publication as the establishment of a new epoch in Southern Medicine.

OCEAN SPRINGS, LYNCHBURG, MISS.

We have, in a former number, called attention to an analysis of these waters by Prof. Smith, and also alluded to their great efficacy in certain forms of chronic diseases; we spoke at the time without sufficient data on the subject to justify any unequivocal declarations, because a sufficient number of well ascertained facts were wanting. Since however we made those remarks, evidence of an unquestionable character has been laid before us by Dr. Austin, fully demonstrating the superior efficacy of these waters in chronic diarrhœa,

scrofulous complaints, dyspepsia, general debility, and almost every variety of nervous complaints, in which the martial preparations might prove serviceable.

This evidence, from many highly respectable Physicians, will be given to the public in pamphlet form, in a few days, by our estimable, friend, Dr. Austin, of this city. From the facts already brought before us, attesting the superior virtues of these waters, we venture to predict that these Springs, when fully found out, will supersede in public estimation any East or West in the United States.

CHOLERA.

At last we are about to be rid of that scourge of the four quarters of the globe —the Cholera; it has, we would fain believe, accomplished its work of death; fulfilled its mission, under Providence, and departed from among us. In no part of the United States does it prevail to any extent; it has spent its force—dried up the fountains of life in millions of subjects—swelled the bosom of the earth with its victims—made desolate the hearts and households of thousands of families, and gone forth to other climes—to other regions, to renew the contest for life or death with the sons and daughters of mortality. Cholera! its mere name sends a thrill of horror to the heart of the brave as well as the timid; to many it will convey sad recollections and heart-rending reminiscences, of friends, relatives and kindred, who were cut off from earth by the Great Destroyer. But why pursue the subject? Let the past be forgotten.

*Quis talia fando, * * temperet à lachrymis?*
** * * animus meminisse horret, luctuque refugit?*

We trust we have seen the last of this scourge; let us hope that it has departed from us forever!

REPORT OF THE CHARITY HOSPITAL,

(NEW-ORLEANS,)

For December 1852 and January 1853.

	SEX.	DEC.	JAN.
Admissions -	Males	1178	968
Do. - -	Females	290	228
		1468	1196
Discharges -	Males	1026	858
Do. - -	Females	244	208
		1276	1066
Deaths - -	Males	146	113
Do. - -	Females	34	39
		180	152
Births - -	Males	5	7
Do. - -	Females	7	13
Still-born -		0	2
		12	22

Number remaining on the 1st January, 1853, 980
" " " 1st Feb. " 957

CALVIN PORTER, Ass't Clerk.

ABSTRACT OF A METEOROLOGICAL JOURNAL FOR 1852.

BY D. T. LILLIE & Co., at the City of New Orleans.

Latitude, 29 deg. 57 min.; Longitude, 90 deg. 07 min. West of Greenwich.

WEEKLY. — 1852.	THERMOMETER.			BAROMETER.			COURSE OF THE WIND.	FORCE OF THE WIND, Ratio 1 to 10.	Number of Rainy Days.	Quantity of RAIN — Inches.
	Max.	Min.	Range.	Max.	Min.	Range.				
Dec. 23	78.0	46.0	32 0	30.40	30.05	0.35	SW.	2.50	1	0.035
" 30	80.0	40.5	39 5.	30.40	30.10	0.20	S.	2.00	2	0.600
1853										
Jan. 6	65.0	37.0	28.0	30.40	29.90	0.50	N.	3.00	0	0.000
" 13	66.0	47.0	19.0	30.22	30.00	0.22	N.	2.28	2	0.860
" 20	53.0	38.0	15.0	30.40	30.00	0.40	N.	3.40	3	2.765
" 27	59.5	38.0	21.5	30.63	29.90	0.73	NW.	3.07	1	0.380
Feb. 3	71.0	38.0	32.5	30.60	30.00	0.60	S.	1.85	1	0.025
" 10	73.0	37.0	36.0	30.23	30.00	0.27	NE.	2.72	3	3.820
" 17	74.0	46.0	28.0	30.16	30.00	0.16	S.	2.64	3	0.370
" 24	68.0	43.0	25.0	30.40	29.60	0.80	W.	3.35	3	1.185

The Thermometer used for these observations is a self-registering one, placed in a fair exposure. Regular hours of observation: 8 A. M., 2 P. M., and 8 P. M.

CIRCULAR.

To the Medical Profession of Louisiana.

In the year 1850, many of your fellow Physicians, after patient consideration, proceeded to the formation of a State Medical Society for "the elevation of the character of the Medical Profession, the protection of the interests of its members, the promotion of Medical Science, and the diffusion of information upon collateral subjects," with the strongest hopes of bringing all Physicians in good standing throughout the State, to share in the responsibilities and privileges of such an Association.

We do not need the antecedents of similar and successful organizations in other States of our great Union, to stimulate us to imitate their works in the common cause of medical advancement, although it is peculiarly grateful to us to acknowledge the disinterested and arduous labors of our "confreres" everywhere, in preserving the honor and usefulness of our noble profession; consecrating their time and opportunities in establishing its claims to the confidence of enlightened communities, and bequeathing imperishable legacies, derived from their toil and self-denial.

The demands upon every right-minded member of the profession within our geographical limits, in view of our almost isolation beyond the city, require that we should make mutual concessions, and even incur personal inconvenience, to promote the objects we have in view.

Many considerations will occur to every intelligent physician, to fix his determination to sustain this new movement among us, and one that is at this time urgent is the repeal of the License Law; by which injudicious measure, we are excluded from a correct knowledge of every respectable practitioner, with whom it would be a source of pleasure to fraternize, and introduce to the professional public as a co-laborer, worthy the esteem and confidence of our intelligent Faculty throughout Louisiana.

Many other valid reasons might be assigned, wholly inexpedient to the design of a "Circular," why you should deem the present moment as one especially opportune to exercise your influence in fostering the "Louisiana State Medical Society," and by your presence at its annual meetings, mingle in the debates, and impart information derived from your particular circle of observation; and, in returning to your field of labor, imbued with the fruits of that free interchange of views and facts, gathered from the great Medical Assembly of the State, thus contribute to enlarge the sphere of its usefulness.

You and other physicians of your neighborhood, now unknown to the officers of the Society, are therefore earnestly and cordially invited to be present at the fourth annual session of the "Louisiana State Medical Society," which will be opened in the Medicall Hall of the University, in the city of New Orleans, on Monday, the fourteenth day of March, 1853, at twelve M.

N. B. All physicians who may desire to be present on the above occasion, are respectfully requested, on their arrival in the city, to repair to the Medical Hall in Common street, between Baronne and Philippa streets, and record their names and address.

Respectfully,

J. M. W. Picton, M. D., President.
John Farrell, M. D., Vice President.
Edward Bein, M. D., Vice President.
J. C. Simonds, M. D., Cor. Sec'y.
J. G. Browning, M. D., Rec. Sec'y.
Richard C. Bolton, Treasurer.
Louisiana State Medical Society.

FRESH VACCINE VIRUS.

Dr. E. D. FENNER, (No. 5 Carondelet street,) will continue to supply the Profession and community with fresh and genuine Vaccine Matter. Orders by letter promptly attended to.

New Orleans, November 1st, 1852.

THE NEW-ORLEANS
MEDICAL AND SURGICAL JOURNAL.

MAY, 1853.

Part First.

ORIGINAL COMMUNICATIONS.

I.—ORDER OF HIPPOCRATES.

BY ALBERT WELLES ELY, M. D. NEW ORLEANS.

All great interests, whether political, moral, religious or scientific, need organizations to sustain them. Indeed such, we may say, is the law or order of nature; for the Creator has accompanied, or brought about, the development of every principle by means of organizations. Every thing about us, whether in the physical or moral world, is connected with, and developed by, organizations. Through organization the principle of all manner of life is developed; through organization humanity, considered in its highest transcendental aspects, is developed; and through organization mind, the only substantial reality and substratum of every thing, is also developed. Look where we will, about us and in us, and we see nothing but organization as the means of giving force and reality to all the known great principles in existence.

Order is nature's first law; but order is organization; and God has not only introduced it into the physical world, for the development of life and the powers of mere matter, but he has set the example of developing and protecting by it the greatest of all moral interests—reli-

gion. For its development and protection God considered that religion needed the organization of the Church, or else he would not have founded the Church. We speak here of no particular Church, but of the Church in general ; and all we wish to show is, that all great interests need organization, as a means of progress, improvement and protection.

The experience of all times and nations shows, that every great interest has ever flourished most under some form of organization ; and at the present day, systems of organization for the promotion of a cause characterize the age. The influence of organized association in advancing objects of utility, is too apparent to all to need specifications. We shall therefore only endeavor, in this paper, to show in what way one of the greatest of causes—that of Medicine—can be advanced and protected by means of organization. It may be said that it has organization already. We grant it ; we know very well that it has Medical Societies, Medico-Chirurgical Societies, and Societies and Associations of different names, almost without number ; but all these *isolated* organizations do not and cannot accomplish the great objects of medicine. They do not advance its great interests, because, being isolated, their influence, good as far as it goes, is confined to a very limited sphere of action. The great interests of medicine and of the medical world require something more general in its nature—an organization that shall embrace the whole medical world as a field of action.

Now, what kind of an organization can that be, of this general nature, extending its influence over the whole medical world, and concentrating within itself powers that shall be efficient and acknowledged by all? Nothing less than a great *Medical Order*—something like that of the Masonic Order, or the Order of Odd Fellows. We wish to be understood—to come to the point. We mean to say, that the great interests of the Science of Medicine require the establishment of a great Medical Order, having one great head, to which all others shall be subordinate. We have chosen to give this order a name—that of the *Order of Hippocrates ;* but some other might, perhaps, be better. Our idea of the organization of this great order is as follows : It should consist of divisions, called *subordinate Colleges*, deriving their charters from one *Grand College*, for the whole United States, holding its sessions quarterly, or semi-annually, in some central point of the Union. The order should be strictly *secret*, and all initiations into it be unifom. All laws regulating the Order should emanate from the Grand College of the United States.

The form and ceremonies of initiation should be of the most solemn and imposing character, accompanied with oaths or obligations binding the initiated to sustain the interests of the Order.* Degrees should also be instituted, the attainment to which should depend on proficiency made in certain branches of science specified by the laws of the Order. These branches of science should not be limited to medicine alone, but embrace, as the degrees become higher, the entire field of human knowledge, the candidate for the highest degree having passed over the entire field of the physical and mathematical sciences, and through all the other departments of the most extended University course of education. This would make the Order not only a medical order, but a *learned* order.†

* The Asclepiadæ, the descendants of Æsculapius, and who were very strict as to the medical qualifications and conduct of their pupils, bound them by the celebrated Hippocratic oath, said by some to have been drawn up by Hippocrates himself, or at least to have been nearly as ancient. It was as follows: "I swear by Apollo, the Physician, by Æsculapius, by Hygeia, and Panaceia, and all the gods and goddesses, calling them to witness that I will fulfil religiously, according to the best of my power and judgment, the solemn promise and written bond which I now do make. I will honor as my parents the master who has taught me this art, and endeavor to minister to all his necessities. I will consider his children as my own brothers, and will teach them my profession, should they express a wish to follow it, without remuneration or written bond. I will admit to my lessons, my discourses, and all my other methods of teaching, my own sons and those of my tutor, and those who have been inscribed as pupils and have taken the medical oath; but no one else I will prescribe such a course of regimen as may be best suited to the condition of my patients, according to the best of my power and judgment, seeking to preserve them from any thing that might prove injurious. No inducement shall ever lead me to administer poison, nor will I ever be the author of such advice; neither will I contribute to an abortion. I will maintain religiously the purity and integrity both of my conduct and of my art. I will not cut any one for the stone, but will leave that operation to those who cultivate it; (ἐκχωρήσω δὲ ἐργάτῃσιν ἀνδράσι πρήξιος τῆσδε) Into whatever dwellings I may go, I will enter them with the sole view of succoring the sick, abstaining from all injurious views and corruption, especially from any immodest action towards women or men, freemen or slaves. If, during my attendance, or even unprofessionally in common life, I happen to hear of any circumstances which should not be revealed, I will consider them a profound secret, and observe on the subject a religious silence. May I, if I rightly observe this my oath, and do not break it, enjoy good success in life, and in my art, and obtain general esteem forever; should I transgress and become a perjurer, may the reverse be my lot."

† We deem it quite unnecessary to enter into an argument to show the necessity of high education to a physician, since the progress of medicine involves a knowledge of so many collateral sciences. This the mere tyro in medicine must readily perceive. It must be observed, however, that many of the unprofessional have adopted the

Certain privileges and distinctions should also accompany each degree and also certain obligations. There should be an initiation fee, and certain monthly dues from the members. The monies thus collected to be appropriated to the support of all needy and worthy members of the Order. A regular system of signs, grips and pass-words should also be introduced, by which a member of the order could be recognized.

Secrecy, which tends to give stability and influence to all orders, should be a special feature of the Order, and violated only with the marked disgrace and expulsion of the member thus offending. There has always existed opposition to all secret orders; but this opposition has always proceeded from a spirit which is disposed to resist an order, whether secret or not. We may safely affirm that secrecy is, if not constantly, at least often necessary in all institutions. It is the only way to guard against disorganizing outward tendencies and influences, which, if not shut out, would often prevent the accomplishment of the most important measures. Hence the frequent "secret sessions" of legislative bodies. Secrecy is the only means by which the members of an order can be bound together for the accomplishment of a great purpose; it gives a unity to every measure, and secures its universal and simultaneous accomplishment, untrammelled by any outside influences. Moreover, it cuts off the intermeddling of all those who are not directly interested. It enables things to be accomplished which could not be accomplished amid the conflicting opinions of an open and promiscuous assembly, where a thousand outside influences modify the vote of some, and silence altogether that of others.

These are some of the reasons, and we deem them sufficient, why the Order which we propose should be a secret one. There are many others which might be enumerated.

That all who are not already M. D.'s might partake of the benefits of the Order, its first four degrees, which should be conferred each only at intervals of one year, should embrace a thorough course of medical studies; the first degree requiring one fourth of the course; the second, one half; the third, three fourths; and the fourth, a knowledge of the whole course, which fourth degree would be that of Doctor of Medicine.

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ridiculous opinion, that neither much education nor much natural talent is necessary for a doctor; and so those sons, supposed by their fathers to possess only moderate abilities, are consigned to the study of medicine, the most difficult and incomplete of all sciences; while the "smarter lads" are supposed to be capable of unravelling the knotty points of the law.

No person, therefore, could take the first degree, or in other words, be initiated into the Order, without the prescribed medical qualifications; nor could he advance in the Order without close application to the attainment of the requisites for each degree.

Those already found to be, on due and strict examination, Doctors of Medicine, could be initiated and passed immediately to the fourth degree. They are then to rise, at intervals prescribed by the rules of the Order.

The other degrees of the Order should not be less than twenty-six in number, each distinguished by a name and appropriate badge ; and no one should be allowed to take a degree except by the vote of those having already taken it, and after standing well a thorough preliminary examination in the branch of science prescribed.

Such is a brief outline of one of the most important orders that could be instituted—of an order which, if faithfully adhered to, would elevate medical science, and render the medical profession what it ought to be—a learned profession. It would give unity and harmony to the medical world, and draw so broad a line between the true Physician and the charlatan, that all the world could see it.

The necessity for the adoption of some mode of protecting the dignity and interests of the medical profession, is found in the fact, that while the laws most amply extend their support to the protection of the legal profession, they, by special legislation, have withdrawn, at least in Louisiana, all protection whatever, and all encouragement, from the medical profession. The present laws of Louisiana ignore all distinction between regularly educated Physicians and the most notorious and barefaced quacks and impostors. They allow any one to impose upon the public, and to trifle with human life, who choses so to do, provided he can exhibit a diploma from any respectable medical school—a requirement which now, unfortunately, it is easy to comply with, since all medical schools are equally respectable in the eyes of the law, and since, through the fault of the profession itself, diplomas are granted, annually, by the hundreds, to candidates whose qualifications must necessarily be extremely superficial—for the idea of acquiring a sufficient amount of medical knowledge, in the prescribed time of two years, is absurd. We do not wonder that the law and the public have set so low an estimate on the medical profession,after seeing with what ridiculous haste it confers its degrees on the hundreds of unlettered men who throng the medical colleges, so called , and bear off so easily and so cheaply the burlesque honors of the profession. After falling into such a sys-

tem, the medical profession could hardly expect that the laws would afford them any protection.*

Lowered as the medical profession certainly is, by the system into which it has fallen, there is no use in trying to palliate and defend it. It is time now to speak out, and to make an effort to retrace our steps. There may be a difference of opinion in regard to the manner in which this is to be done ; but we conceive that the establishment of a Medical Order would be an efficient means of accomplishing the object. It would bind the profession together, elevate the standard for medical proficiency, raise up a combined force throughout the Union for the suppression of charlatanism, and add greatly to the dignity of medicine as a profession. The Order would be the judge of the qualifications of members of the profession, and extend its countenance and support to those only, who, after strict examination, were found worthy. Such, and such alone, would be sustained by the Order, out of its funds, if necessary. The Order would be, in fact, a brotherhood, sworn to mutual protection and support, upholding the worthy, and punishing with disgrace all gross unprofessional conduct. The public and standing arrangements of the Order would inform the world who were worthy of confidence as Physicians; and these announcements would soon become the received guide of the public, and concentrate all practice in the hands of the Order.

A writer in the Southern Literary Messenger for December, 1852 whom we believe to be an Assistant Surgeon in the U. S. Navy, comments very freely and justly on the state of medical education in the United States, while alluding to the laws of Brazil on the subject. The Brazilian student of medicine is required to master a course of study of seven whole years before he is able to obtain a diploma. Thorough education, and an amount of knowledge which commands the respect and confidence of the public, and honors the profession, is the result; affording, however, a very striking contrast with the disgraceful sys-

* Truth requires us to add, that some medical colleges fix their "diploma fee" at thirty dollars ; which high rate has the effect of lowering the standard for graduation. For the sake of the thirty dollars, there is no particular solicitude felt for the proficiency of the student applying for a diploma. The "faculties" are manifestly interested in "passing" as many as possible. Forty graduates at thirty dollars, would be twelve hundred dollars—a handsome little sum, well worth saving. To clear themselves of all suspicion, medical faculties ought to make no charge, or at least, a merely nominal one, just sufficient to pay the expense of the parchment ; and in justice, we must say, that there is at least one medical school in the South, which does so.

tem now generally adopted in the United States. So truthful are the observations of the writer in the Messenger, that we cannot refrain from giving the following quotation :

" It is lamentable to see," says he, " how falsehood and credulity conspire to delude and cheat the people in medicine, in surgery, in politics, and even in religion, and how little encouragement masses of men give to absolute truth and integrity.

" For thirty years and more, the system of medical education, pursued in the United States, has tended to lessen the amount of knowledge required by colleges to secure the diploma, a certificate to the public that their alumni respectively were true men, worthy of confidence and trust in all things pertaining to the art and mystery of removing disease. Indeed it is nearly thirty years since it was ascertained in the military services of the country, that the diploma of colleges is not a reliable document, and that this certificate, purporting to embody the testimony of trustees and professors, men elevated to their positions in consequence of their integrity and learning, could not be trusted. Hence the Government, for once, in advance of the knowledge of the day, disregarded the diploma, and employed only such persons in the medical department of the Army and Navy as were pronounced competent by boards of experienced medical officers, appointed to examine them. In the early days of these examinations not one fourth of the candidates examined were found qualified ; and even now not much more than one half of those examined are passed; yet all, or nearly all, who present themselves, are armed with diplomas or certificates to the public that they are fully instructed and capable to practice medicine and surgery, as occasion may require.*

"Still the evil goes on. Medical schools are multiplied in almost every section of the Union ; they resort to various means to attract the pupils, and in some instances they rival each other in facility of granting diplomas. Such institutions believe they find both their renown and profit to be in proportion to the number rather than in the learning of their graduates ; and this system is tending to lessen the respectability of the medical profession, and to encourage quackery, imposture and credulity; and the only hope of eradicating this state of things is in the American Medical Association, which will in time, perhaps, enlighten the public as to the true character of certain institutions, which, under the pretext of teaching medical science, are obtaining money under false pretences, and indirectly colluding to poison and kill innocent members of the community. If the influence of the respected and respectable members of the profession proves insufficient to protect the public from such imposters, a general law, inhibiting any person from practising medicine or surgery for profit, except by license obtained on the certificates of boards of examiners, appointed by the executive or legislative authority of the States respectively, might be effectual. The profits of such a board should be independent of the result of the examination. Its members should look only to the interests of the community, and without fear or favor of candidates for license to practice."

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* The multitude of these rejected doctors, pronounced by the U. S. Medical Examiners unfit to be entrusted with the lives of the sick of the Army and Navy, are nevertheless rendered, by the laws of Louisiana, fully competent to prescribe for the good citizens of Louisiana !

The writer very candidly and justly admits, that there are Physicians and Surgeons in the United States, who, for skill and dexterity in the healing art, are not surpassed by those of any other country. Every candid medical writer will admit this; but no thanks to our "medical schools" for it. Our numerous Physicians, justly distinguished for their skill and extensive medical knowledge, owe their distinction to their laborious and long protracted studies and practice, and to nothing else —a conclusive proof that the present "fast" system of grinding out annually, from "medical schools," batches of hundreds of M. D.'s, is a cheat, a humbug, a lie—a monstrous and murderous imposition practised upon the public.

Can it be possible that the Legislature of Louisiana that enacted the present medical law of this State, which admits all to practice medicine who have diplomas, were aware of the fact, that for the last thirty years the United States Government have ceased to recognize a diploma as evidence of medical capacity? If they were, they should have given the fact some heed.

We do not agree with the writer quoted above, that our only hope of reform lies in the American Medical Association; for we do not believe that that Association has an organization which will enable it to reach all the wants, and to crush all the abuses, of the profession. It can do nothing more than has been attempted by the enactments of Legislatures on the subject, and it is well known that these enactments have for the most part failed. The American Medical Association may recommend wholesome measures; but it has none of those means, common to secret orders, for enforcing them. It is not a brotherhood, and therefore no individual of the profession feels himself bound to it by any ties whatever. He can look to it for no support—no protection—no operative sympathy. It can enforce nothing; it can only recommend; and that we can all do.

What the great interests of the profession requires is an Order, all of whose members are pledged, by their sacred honor, to carry out the measures of the Order through the means prescribed—all being bound together by solemn obligations to defend one another and the interests of the Order, by all lawful means. Such an Order as that we recommend would soon extend its ramifications into all parts of the Union, and soon exhibit its effects upon the profession.

We cannot, of course, enter into a development of all the internal regulations and modes of action of such an Order, since strict secrecy is to be its prominent characteristic; the details will readily suggest

themselves to those conversant with Orders already existing. The rapid success of existing Orders, and the many benefits resulting to society from them, show their efficiency as instruments of good. They extend to cases which the laws cannot reach, and they carry out their measures by a unity of action, and a systematized graduation of powers, which operate alike on all and in all places.

There is a general feeling among the members of the profession, that certain radical reforms are very much needed. Abuses have been carried so far, that a general alarm begins to be felt. A remedy is loudly called for. We respectfully invite the attention of the medical profession to an examination of the remedy which we propose, and hope that this paper will call the attention of the more prominent members of the profession to a careful investigation of the subject.

II.—WHY HAS YELLOW FEVER CEASED TO VISIT PHILADELPHIA AS AN EPIDEMIC?*

I close the discussion of the doctrine of contagion, with this most significant quere. A concise response will develop the entire merits of the controversy, and leave not an inch of ground on which to rest the point, so long and so strenuously maintained by a small portion of the medical profession. Why has yellow fever failed to visit the cities of Philadelphia and New York, as an epidemic, for nearly one fourth of a century? Can this interrogatory be solved satisfactorily, by the believers in contagion and importation; and if not, can the advocates of domestic origin and non-contagion offer a plausible solution of the problem? This is a grave suggestion.

History has recorded the desolations of Philadelphia in 1793, and subsequent years, down to 1800, by the terrible scourge of which we are speaking. In less than three months, between three and four thousand persons perished in that city in the year first named, and in one or two seasons subsequently, the mortality was nearly as great. It will appear from a reference to the census, that the population of Philadelphia in 1793 did not exceed 50,400, whereas in 1850 it exceeded 400,000. Here we find a vast augmentation of subjects, on which a

* Extract from Manuscript on the "Fevers of the United States of America," by Thomas D. Mitchell, M. D., Professor of Theory and Practice in the Kentucky School of Medicine.

truly contagious disease, if imported, could not fail to exert a terrible influence. It is hardly necessary to state, what every reflecting man would naturally expect, that the commerce of Philadelphia increased with its population; not only do more vessels visit foreign countries, but the voyages are more numerous by reason of the improvements in ship building now than at any former period; and between 1793 and 1853, the disparity in this respect is incredibly great.

In view of these historical facts, which cannot be controverted, it is quite obvious that our quere grows in importance. A very few years after the settlement of Philadelphia, when its population did not exceed 1500, yellow fever was exceedingly fatal; and the most prominent physician, Dr. Bond, endeavored to convince the people, that a ship, just from *Dublin*, full of *Irish* emigrants, imported the disease.* And in later years, when the disease made more serious havoc, because of augmented materiel, the same mode of accounting for its appearance has been resorted to; and hence our quarantine laws. Was yellow fever raging in any foreign port to which vessels of the United States constantly trade, and did the disease make its appearance in Philadelphia, it was traced by not a few, directly to this or that distant seaport, and the credulous received the announcement just as if it were a problem mathematically demonstrated.

Now, every Philadelphian knows that yellow fever has not been heard of in that city, as one of its epidemic affections, for nearly a quarter of a century. If it has been there at all, even sporadically, the populace did not know it, and of course there was no popular tumult like that of 1793, and in subsequent years, down to 1800. And what is most remarkable in all the history is the fact, that the population and commerce have been all the while rapidly growing, why then this prolonged absence of yellow fever? On their own principles of contagion and importation, can the advocates of these doctrines furnish a satisfactory solution?

But we have quite important data of recent date, to present in this relation. Although it suited well enough for the support of a mere theory, to assert that yellow fever never appeared in Rio Janeiro, where intermittents and remittents have long been familiar, only a few months elapsed after the appearance of an elaborate paper in the American Journal of Medical Science on this very point, ere one of the most terribly fatal epidemics of this very yellow fever the world has

* See Watson's Annals of Philadelphia.

ever known, broke out at this same Rio. The London Lancet has recorded the fact that in 1850, not less than ten thousand persons fell before this awful pestilence, and that in ten days in the month of April, 1851, no fewer than eleven hundred victims were borne to their final resting place; and all this in Rio Janeiro, a port with which we have constant intercourse. And in addition to these facts, we may notice very properly the unusually frequent announcements in our newspapers of the ravages of yellow fever in Martinique, in Porto Rico, in Saint Thomas, and in various places which our merchant vessels are visiting several times in each year. Indeed the information to which we refer is brought into Philadelphia, directly, from the places referred to, by her own vessels. Such has been the real state of the case, throughout the year 1852, as well as in preceding years.

Perhaps the contagionists and importers will tell us, that some other disease, and therefore not yellow fever, has done the mischief referred to above. But this device has grown so stale, and is worn so literally threadbare, that it can be treated only with contempt. Unfortunately, the disease under review has been too well known to be for a moment a problematical thing in the islands named above, and in various other places, where its visitations are looked for every year, as a matter of course. The people have a painful realization of the unwelcome truth, that the disease is an epidemic of their locality, and of course not an imported calamity.

Does the quarantine system of Philadelphia protect the citizens of that place from yellow fever? Who that knows the facts will deny, that the whole system is its own best refutation, not only, but that its provisions are enforced with such culpable laxity, as to convince every reflecting mind, that for all the purposes of a safeguard against the introduction of yellow fever from distant places, it is a sheer nullity.

But let the contagionists and importers make out their case. What will it amount to? Is yellow fever an awfully *contagious* disease? Is the body of one man, sick and dying of this fever, competent to the inoculation of a whole city; and do coffee bags and mahogany logs brought from the West Indies, possess the same power? Can this very contagious fever be conveyed in persons and things on ship-board, across the ocean for several thousand miles, so as to endanger the whole community of Philadelphia? Why then have not the protracted tragedies of 1793, 1794, 1795 and 1798, been reproduced in the city of Philadelphia, even once during more than twenty years? With the facts of his-

tory staring them full in the face, the most rabid contagionists in the world must remain dumb, or honestly and candidly recant. To my mind, it is infinitely more easy to solve the ancient problem of the philosopher's stone, than for the contagionists and importers to meet our quere on their own principles.

Is it possible for those who believe in the domestic origin and non-contagion of yellow fever, to do in this regard, what the contagionists and importers are impotent to accomplish? Can we rationally account for the non-appearance of this disease as an epidemic in Philadelphia, for more than twenty years, on the basis which all contagionists utterly repudiate ?

Let us look into this matter. We have seen that yellow fever has been unusually fatal, and on a broader scale than heretofore, within a few year's past, in places with which Philadelphia maintains a constant and growing intercourse; and that notwithstanding these known facts, the disease has failed to desolate the city for so many years, that two thirds of all her physicians have never seen a case. We think we have a clear right to the inference, from these premises, that yellow fever not only has not been imported for the last twenty years, but that it cannot be, and by consequence, that its alleged contagious attribute falls to the ground.

Why then has yellow fever ceased to desolate Philadelphia? And here our reliance must be on historic facts. What these amount to, we shall now endeavor to set forth, as concisely as may be, not doubting that the developments to be made will be satisfactory. And, while we say *satisfactory*, we by no means intend to be understood as speaking of some who will not be convinced by any amount of evidence. It falls not within the range of our plan to enlighten any who will not see.

The historic facts to which reference has been made are, 1st. The unwholesome quality of the pump water, and its abandonment. 2d. The enaction of rigid laws for insuring cleanliness. 3d. The renovated condition of the river front, and the speedy removal of all nuisances. All these schemes for promoting the healthfulness were strictly local, and aimed, not at keeping a foreign fever in its own hotbed, but in purifying home, and rendering it safe, and even salutary.

In volume 2d, page 457, of Watson's Annals of Philadelphia, we read thus : There was little or no desire expressed by the citizens of Philadelphia for any other than *good* pump water, till after the yellow fever of 1793. Then, when the mind was alive to every suggested

danger of ill health, the idea of pump water being no longer good, found its increasing supporters."

In the same work it is stated, "that the first erection of the Philadelphia Waterworks took place in 1799."

There are many persons who do not know, that in the early settlement of Philadelphia, it was generally supposed that the city would never go westward beyond Fifth street. The Governor's mansion, Christ Church, the first Presbyterian, and the first Baptist church premises, were located within two or three squares of the river bank, and the city was as compact a mass of edifices, east of Fifth street, as the area would permit, with a very few exceptions, as early as 1799. The wells had been dug and pumps placed in them, without reference to the encroachment of habitations for the emigrants; and although the water was at first very pure, yet the rapid multiplication of privies, which the laws required to be sunk to a specified depth, gradually tainted nearly all the wells, so as to disgust new comers exceedingly. Well do I remember the time, in my boyhood, when, after a Saturday afternoon ramble to the Schuylkill, we regaled ourselves at the old brick-kiln pump, as it was called, on Cedar street, near the present Broad street. It was really a treat to men as well as lads, to drink of that pure water; for there were not more than one or two wells beside where the water was really good.

Now if it be borne in mind, that the water tainted by percolation from a thousand or more privies, constituted the daily drink of the population, as a beverage not only, but that vast quantities were constantly consumed in various dietetic processes, it will not be deemed strange that Philadelphians, even in 1793, when their number did not exceed 50,000, began to talk freely of schemes for the supply of pure water.

The water-works of 1799 met the difficulty adverted to, and gave to the city the pure water of the Schuylkill, uncontaminated with factories, whose refuse and sickly drains have, in more modern times, lessened its salubrious qualities. Such was the change in point of purity, that although tepid in the summer, the Schuylkill water was almost universally preferred to the very cold issues from the old pumps. And the expedient proving, as it did, highly satisfactory in kind, the way was prepared for the mammoth establishment now everywhere known as the Fairmount Waterworks; and during the last fifteen years, not a well in the city has been resorted to, as a means for the gratification of thirst.

Nor was this mighty *water* revolution restricted to internal use. The

water, carried into almost every dwelling, and ready to gush out from hundreds of fire-plugs on the streets, not only secured against fire, but gave to the people such an engine for universal cleanliness as Philadelphia never realized before. The market-places, hitherto insupportably filthy, became, under the new regime, fit specimens of the cleanly and wholesome; and now, twice a week during the summer, are their pavements deluged with the Schuylkill water. The same facility for cleanliness is seen by the stranger in all parts of the city, during the months of the hot season, in the flooding of the gutters to such an extent, as to wash away every sort of accumulated filth.

The medical reader of facts, setting forth the renovated health of whole families and communities, merely by a total and perpetual change of water, in other countries, will be at no loss to appreciate fully the vast benefits resulting to the entire population of Philadelphia, by the disuse of filthy and noxious well water, and the substitution of the limpid stream in its stead. And if there had been no other improvements in the city, calculated to insure its healthfulness, this alone might have been relied on by all future writers, as the grand instrumentality in saving the city from epidemic yellow fever, *which has never found place in Philadelphia, since the universal introduction of the Schuylkill water.*

Our second item, viz., the enaction of laws for securing general cleanliness in the city, merits a passing notice. For, apart from the constant washing of markets and gutters with river water, the laws forbade the old custom of throwing offal vegetable and animal matters into the streets; and carts were to be seen, as now, in every street daily, ready to take away the refuse matters, placed in buckets or barrels on the footway for that purpose. The privies were put under a rigid police system, so that by emptying in the winter season, and by the addition of quicklime in the spring, their tendency to contaminate the air is almost nullified. These matters are not so many dead letters on the statute book, but are the subjects of a constant and vigilant espionage.

But inasmuch as the river front (we mean on the Delaware) was by far the most filthy and offensive portion of the city, presenting unsightly holes for the breaking down of drays and carts, as well as most noxious heaps of all sorts of decomposable matters, left for weeks to putrify and send forth their sickly exhalations, it is quite important to mark the revolution there. The boy who left Philadelphia for Europe in 1800, and who should come back in 1853, to survey Water street

and the alleys leading thence to the river, and the entire river front of several miles in length, would find himself in a new region, and might well begin to conjecture that he was in the wrong place. In lieu of mud streets, abounding in vast gullies and indescribable filth, the whole region presents a firm and uniform stone pavement, with brick sidewalks, wharves kept in the best possible condition, and the lodgment of filth made indictable, as a common nuisance.

In view of these local improvements, in the city of Philadelphia, after the year 1799, let me inquire, whether expedients very much of the same nature, have not eradicated the *endemic* character of many localities on our great Western rivers? Why have merely nominal villages, once containing not more than a dozen dwellings, and scarcely inhabitable by reason of periodical fevers, grown to be quite large towns, ranging between one and three thousand inhabitants, who enjoy as good a share of health as the people of older cities? The answer is at hand, for I have witnessed the revolution, and can therefore speak of it confidently. The holes, ravines and dykes have been filled, so as to present a gradual, even slope upward from the river bank. All the sources of fowl exhalations have been and are carefully removed, and where the swell of the Mississippi formerly made its mark for days and weeks, large store houses and dwellings of good structure are to be seen. The hand of industry and thrift has been there, and the place is no longer the hot-bed of agues and fevers. And just so has it been with the now great, but once small city of Philadelphia. The sources of its former epidemic desolations have been annihilated. The sequel has been told already.

The entire controversy about importation and contagion of yellow fever, so far as Philadelphia is a part of that controversy, can be compressed within the circumference of a nut-shell thus:

1st. Yellow fever has been a most desolating scourge in former years, to the city of Philadelphia.

2d. The population and commerce of the city have been vastly increased during the last quarter of a century; and yellow fever is the same terrible scourge in places to which our vessels constantly trade, as it ever was.

3d. As an epidemic, or in any other way to excite alarm and terror, this disease has been so entirely absent from Philadelphia for more than twenty years, that not one in one hundred of all her vast army of physicians has ever seen a case, within its geographical limits.

4th. Yellow fever has not been imported into Philadelphia for a period not exceeding twenty years, and the fair inference from this fact is, that it cannot be, and that it never was imported. And as importation and contagion are inseparable as the Siamese twins, if one be annihilated, the extinction of the other necessarily follows.

III.—COOPER'S WELL WATER—ITS MEDICINAL VIRTUES IN CERTAIN FORMS OF DISEASE.

BY J. T. KENNON, M. D.., OF MISS.

A. Hester, M. D.

DEAR SIR—A few remarks in relation to this justly celebrated watering place, may be perused with some degree of interest by many of your readers. And the object I have in view in making this communication is, to bring before the profession a few facts connected with the medicinal properties of this water, as they occurred under my immediate observation during the past year.

By reference to my case book, I find recorded forty-six cases of diarrhœa. A very large majority of these cases were relieved, many perfectly cured, and quite a number did not remain a sufficient length of time for the water to manifest its full powers. I believe that nineteen cases out of twenty, suffering from chronic diarrhœa, would recover here, with a little medical aid, and a proper exercise of prudence, by the judicious use of this water.

Of fifty-one cases of dyspepsia, the major part were relieved. Here again many of the patients left without giving the water a fair trial. I have observed, that the virtue of this water is not so prompt in its action, generally, in dyspepsia as it is in diarrhœa. This may be owing to the greater complications, in most instances, of dyspepsia.

Seven cases of simple indigestion were perfectly relieved in a very short time.

In most of the chronic affections of the liver, this water acts very finely. When that organ is in a torpid state, an increased flow of bile, and a more healthy action, invariably follows its use. I remember two cases, where there were very evident symptoms of shrinking and softening of the liver, in which there was no decided benefit derived.

Twenty-four cases of general debility, from the ordinary fevers of our country, and from dysentery, recovered very rapidly. One patient, who

had suffered from a severe and protracted attack of typhoid fever, that had left him partially paralyzed, gained, in sixteen days, twenty-four pounds of flesh, and strength in proportion.

In chronic dysentery, after all the inflammatory symptoms have subsided, it exerts a beneficial influence; but aggravates acute cases.

In diseases of the womb, owing to its tonic and alterative properties, this water displays its virtues in an eminent degree, especially in suppression and irregularity of the catamenia. During the past summer I treated a case of malignant ulceration of the neck of the womb, accompanied with diarrhœa and great prostration; cured in six weeks. Also a case of extensive ulceration of the vagina and womb, cured in five weeks.

In most of the affections of the womb, bladder and kidneys, it will seldom disappoint the most sanguine expectations. In three cases of diabetes, one was perfectly cured, and the other two very much improved.

Wherever disease has been confined to the mucous membrane, I have never known it to fail in producing a salutary effect. It has cured several severe cases of bronchitis; but in consumption, the most disastrous results invariably follow its use. Three cases of consumption were brought here during the last season, and two of them died on the seventh and the other on the tenth day after they arrived. It is very injurious in functional and organic diseases of the heart.

In dropsy, where the powers of the system are not so much prostrated, as to prevent the free use of the water, it is nearly a certain remedy. In cases of sick headache, the suffering ones are never disappointed who seek for relief at this fountain.

In constipation it stands unrivalled. During the last season a case of fifteen years duration, who, like the woman mentioned in the Scriptures, "had suffered many things of many physicians, and was nothing bettered, but rather grew worse," was perfectly relieved in six weeks.

In nervous debility, secondary syphilis, gleet, gonorrhœa, etc., the effects are decidedly beneficial.

Two cases of chronic rheumatism were very much improved; but it is entirely too exciting in acute cases.

In most of the eruptive diseases of the skin it acts finely. I had two cases of tympanitis, but they remained so short a time, it was impossible for me to determine whether they derived benefit or not. Also two cases of spasmodic contraction of the lower portion of the æsophagus.

These patients remained but a few weeks, during which time their general health was somewhat improved. To one of them I administered strychnine with decided good effect.

I have never seen this water fairly tested in scrofula, but entertain the opinion that it would make a good adjunct in the treatment of that disease.

The predominant properties of this water are tonic, powerfully diaphoretic and diuretic, apperient, and when taken freely, actively cathartic, slightly stimulant, often producing a sensation of fulness about the brain, and an exhilerating influence upon the mind. The effects upon the brain are very similar to those that follow the drinking of a few glasses of Champagne wine.

This highly medicated water has made some very astonishing cures, and it yet remains to be discovered, the vast extent of its application and adaptation to the various forms of human maladies. Many are the living witnesses, who stand up in the pride of health to testify to its efficacious powers—who, when hope had almost fled them, and life's flame was flickering low in the socket—when the physician had given them up, and friends despaired of their recovery, came and drank, and live to tell this wondrous story. And among the important cures that have been made here, are several distinguished members of the profession; and I will take the liberty of mentioning the names of Doctors Sims and Foster of Alabama, and Dr. Boswell of Georgia.

The following analysis of these waters, by Dr. Lawrence Smith, will exhibit in a comprehensive form their peculiar characteristics:

Temperature—64 ° Fahr., the air being at 50 °.

Taste—Not unpleasant, and slightly mineral.

Odor—Little or none, although it is said most commonly to have a marked odor of sulphuretted hydrogen; the quantity however must be very small.

Color—Transparent, with small yellow flakes floating on it.

Specific Gravity—1.00147.

Gas contained in one wine gallon.

Cubic inches—		Oxygen.	1.5
do.	do.	Nitrogen	4.5
do.	do.	Carbonic Acid	4.0

Solid contents of one gallon are 105 grains, composed as follows:

	Grains.
Sulphate of Soda,	11.705
Sulphate of Magnesia,	23.280
Sulphate of Lime,	42.122
Sulphate of Potash,	0.608
Sulphate of Alumina,	6.120
Chloride of Sodium	8.360
Chloride of Calcium,	4.322
Chloride of Magnesium,	3.480
Peroxide of Iron,	3.362
Crenate of Lime,	0.311
Silicia,	1.801
	105,471

The deposit which collects in concentrating the water, contains in 100 grains:

	Grains.
Water,	38
Crenate of Lime,	2
Sulphate of Lime,	25
Peroxide of Iron,	35

The iron in the water was found altogether in the yellow part which floats about, although it is more than probable that at certain seasons of the year it must also be found in the clear water.

Feb., 21*st*, 1852.

IV.—GEOGRAPHICAL DISTRIBUTION OF ANIMALS AND THE RACES OF MEN.

BY J. C. NOTT, M. D., OF ALA.

Have all the living creatures of our globe been created at one common point in Asia, and from thence been disseminated over its wide surface by degrees, and adapted to the varied conditions in which they have been found in historical times; or, on the other hand, have different genera and species been created at points far distant from each other, with organizations suited to the circumstances in which they were originally placed?

Two schools have long existed, diametrically opposed to each other, on this question. The *first* may be termed the Theological Naturalists, who now look to the Book of Genesis, or what they conceive to be the inspired word of God, as a text book, of Natural History, as they formerly did of Astronomy and Geology. The *second*, embraces the Naturalists proper, whose conclusions are derived from facts, and the laws of God as revealed in his works, which are immutable.

Not only the authority of Genesis in matters of science, but the authenticity of this book is now questioned by a very large proportion of

the most authoritative theologians of the present day ; and as its language is clearly opposed to many of the well-established facts of modern science, we shall unhesitatingly take the benefit of this liberal construction. The language of Genesis touching the point now before us is so unequivocal, and so often repeated, as to leave no doubt as to the author's meaning. It teaches clearly that the Deluge was *universal*, that every living creature on the face of the earth at the time was destroyed, and that *seeds* of all the organized beings of after times were saved in Noah's Ark. The following is but a small portion of its oft-repeated language on this point.

" And the waters prevailed exceedingly upon the earth, and all the high hills that were under the whole heaven, were covered." "Fifteen cubits upward did the waters prevail and the mountains were covered." " And all flesh died that moved upon the earth, both of fowl, and of cattle, and of beast, and every creeping thing that creepeth upon the earth, and every man. All in whose nostrils was the breath of life, of all that was in the dry land—and Noah only remained alive, and they that were with him in the Ark." *Gen. Chap. vii.*

Now we repeat that language cannot be more explicit than this, and if it be true, it must apply with equal force to *all* living creatures—animals as well as mankind. It is really trifling with language to say, that it does not distinctly convey the idea, that all the creatures of our day have descended from the seed saved in the Ark, that they were created within a certain area around the point at which Adam and Eve are supposed first to have had their being.

Though the same general laws prevail throughout the entire Fauna and Flora of the globe, yet in the illustration of our subject, we must restrict our remarks mainly to the class of *Mammifers*, as a wider range would lead beyond our prescribed limits.

It has been a widely received error, from time immemorial, that degrees of latitude, or in other words, temperature of countries, was to be regarded as a sure index of the color, and certain other physical characters of races of men. This opinion has been supported by many able writers of the present century, and even in the last few years by no less authority than that of the distinguished Dr. Prichard, in his "*Physical History of Mankind*;" a rapid change, however, is now going on in the public mind on this point, and so conclusive is the recent evidence drawn from the monuments of Egypt and other sources, in support of the permanency of the well marked types of mankind, as the Egyptians, Jews, Negroes, Mongols, American Indians, etc., that we presume no really well informed naturalist will again be found advocat-

ing such notions. In fact, it is difficult to conceive how any one, with the facts before him, recorded by Prichard himself, in connection with an Ethnographical Map, should believe that climate could account for the endless diversity of races seen scattered over the earth from the earliest dawn of history.

It is true that most of he black races are found in Africa; but on the other hand, many equally black are found in the temperate climates of Australia and Oceanica, though differing in every thing except color. A black skin would seem to be the best suited to hot climates, and for this reason we may suppose that a special creation of black races is found in Africa. The strictly white races are found in the Temperate Zone, where they flourish best, and they certainly deteriorate physically, if not intellectually, when removed to hot climates. Their type is not in reality changed or obliterated, but they undergo a degradation from their primitive one, analogous to the operation of disease. The dark-skinned Hyperboreans are found in the Frigid Zone, which is most congenial to their nature, and from which they cannot be enticed by more temperate climes. The Mongols of Asia, and the Aborigines of America, with their peculiar types, are spread over almost all degrees of latitude.

So is it with the whole range of Mammifers, as well as birds, etc. The lightest and darkest colors—the most gorgeous and most sombre plumages are everywhere found beside each other, though brilliant plumages and colors are more common in the tropics, where men are generally more or less dark.

Every point on the earth's surface, from Pole to Pole—the mountains and valleys—the dry land and the water, has its organized beings, which find around a given centre all the conditions necessary for their preservation. These living beings are as innumerable as the conditions of the places they inhabit, and their different stations are as varied as their instincts and habits. To consider these stations, under the simple point of view of the distribution of heat on their surface, is absolutely to see but one of the many secondary causes of nature which influence organized beings.

Amidst the infinitude of beings spread over the globe, the Class of Mammifers stands first in organization, and at its head Zoologists have placed the *Bimanes* (Mankind). It is the least numerous, and its genera and species are almost entirely known.

This class is composed of about 200 genera, which may be divided into two parts. 1st. Those whose habitations are limited to a single

Zone. 2d. Those, on the contrary, which are scattered through all the Zones. There would seem at first a striking contrast between these two divisions; on the one side, complete *immobility*, and on the other, great *mobility;* but this irregularity is only apparent, for when we examine attentively the different genera, we find them governed by the same laws. Those of the first division, whose habitation is limited, are in general confined to a *few species;* while those of the second, on the contrary, contain *many species*, but which are themselves confined to certain localities, in the same manner as the small genera of the first division. Thus we find the same law governing *species* in both instances. We will cite a single example out of many. The White Bear is confined to the Polar regions, while other species inhabit the temperate climates of the mountain chains of Europe and America; and finally, the Malay Bear, and the Bear of Borneo, are limited to torrid climates.

We may then consider the different species of Mammifers as ranged under the same law of geographical distribution, and say that each species on the globe has its limited space, beyond which it does not extend; and that every country on the globe, whatever may be its temperature, its analogies, or differences of climate, possesses its Mammifers, different from those of other countries, and which belong to it alone. There are apparent exceptions to this law, but they are all susceptible of explanation.*

A few species are really common to the two continents, but only in the Arctic region. The two continents are there united by icy plains, which may be easily traversed by certain animals, and the White Bear, the Wolf, the Red Fox, the Glutton, are common to both, but the continents and climates may here be really considered as one. We shall show, as we go on, that with a few exceptions in the Arctic region, the Faunæ and Floræ of the two continents, are entirely distinct, and that even the Temperate Zones of North and South America do not present the same types, although they are separated only by table lands which present none of the extremes of climate seen in the Tropic of Africa.

But this immobility imposed by nature on its creatures, is illustrated

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* Considerations Générales sur l'Anthropologie, etc. Par M. Honoré Jacquinot. Paris. 1846.

This is one of the most remarkable books of our day, and we beg leave once for all to say, that we have drawn freely on it throughout this chapter, as well as some others.

in a still more striking manner if we turn to the Mammifers which inhabit the *ocean*, where there are no appreciable impediments, none of those infinitely varied conditions, which are seen upon the land, even in the same parallels of latitude. The temperature of the ocean varies almost insensibly with degrees of latitude, and among the immense crowd of animals which inhabit it, we find numerous families of Mammifers. Though endowed with great powers of locomotion, and notwithstanding the trifling obstacles opposed to them, like animals of the land, they are limited to certain localities. The genera *Calocephales*, *Stemmatopes* and *Morse*, are peculiar to the Northern Seas. In the South, on the contrary, we find the genera *Otarie*, *Stenorynque*, *Platyrynque*, etc. Other species inhabit only hot or temperate regions.

The numerous species of Whales and Dolphins, with their prodigious powers of locomotion, are confined each to regions assigned them. While there is so little difference of temperature in the ocean, that a human being might, on a summer's day, swim with delight from the North Temperate Zone to Cape Horn off any coast of America, there is no degree of latitude in which we do not find species peculiar to it.

After a resumé of these and numerous kindred facts, M. Jacquinot uses the following emphatic language: "To recapitulate, it seems to us, after all we have said, that we may draw the following conclusions, viz., that all the Mammifers on the globe have a habitation limited, and circumscribed, which they never overleap; their reunion contributes to give each country its particular stamp of creation. What a contrast between the Mammifers of the Old and New World, and the creations so special and so singular of New Holland and Madagascar."

Facts thus point to numerous centres of creation, where we find creatures fixed, with peculiar temperaments and organizations, which are in unison with surrounding circumstances, and where all their natural wants are supplied. But the strongest barrier would seem to be that of *instinct* —that force blind and incomprehensible, which binds them to the soil which has seen their birth.

Let us now turn to the races of Mankind and their geographical distribution, and see whether they form an exception to the laws which have been established for the other orders of Mammifers. Does not the same physical adaptation, the same instinct, which binds animals to their primitive localities, bind the races of Men also? Those races which inhabit the Temperate Zones, as the white races of Europe, for example, have a certain degree of pliability, which enables them

to bear climates to a certain extent hotter or colder than their native one, but still there is a limit beyond which they cannot go with impunity—they cannot live in the Arctic with the Esquimaux, or in the Tropic of Africa with ihe Negroes. The Negro, too, (as have the Elephant, the Lion, the Camel, etc.,) has a certain pliability of constitution, which enables him to enter the Temperate Zone, but his Northern limit stops far short of that of the natives of this Zone. The high caste, of what are termed Caucasian races, are influenced by several causes in a greater degree than other races. To them have been assigned, in all ages, the largest brains and the most powerful intellects; theirs is the mission of extending and perfecting civilization—they are by nature ambitious, daring, domineering and reckless of danger—impelled by an irresistable instinct, they go to all climes, regardless of difficulties, and how many thousands are sacrificed annually to climates foreign to their natures.

It should be borne in mind too, that what we term the Caucasian race, is not a unit; it is, on the contrary, an amalgamation of an infinite number of primitive stocks, of different instincts, temperaments, mental and physical characters, etc. Egyptians, Jews, Arabs, Teutons, Celts, Slavonians, Pelasgians, Romans, Iberians, etc, etc., are all mingled in blood, and it is impossible now to go back and unravel this heterogeneous mass, and say precisely what each originally was. This mingling of blood, through migrations, wars, captivities and amalgamations, is doubtless one of the means by which Providence carries out his great ends. This mixed stock is the only one which can really be considered cosmopolite. The infinite diversity of character and instincts which belongs to them, contrasts strongly with the characters of other families.

How stands the case with those races which have been less subjected to disturbing causes, and whose moral and intellectual structure is less complex. The Greenlander in his icy region, amidst poverty, hardship and want, clings with instinctive pertinacity to his birth-place, in spite of all—the Temperate Zone, with its luxuries, has no charm for him. The African of the Tropic, the Aborigines of America, the Mongols of Asia, the inhabitants of Polynesia, have remained for thousands of years where history found them, and nothing but absolute want, or self-preservation, can drive them from the countries where the Creator placed them. These races have been least adulterated, and have better preserved their original instincts and love of home. This is illustrated in a most remarkable degree by the Indians of America—

we still see the small remnants of scattered tribes fighting and dying to preserve the lands of their ancestors.

We shall have more to say, in another chapter, on the amalgamation of races; but we may here remark, that the infusion of even a small proportion of the blood of one race into another, produces the most decided modification of moral and physical characters. A small trace of white blood in the negro improves his intelligence and moral character; and a small trace of negro blood, as in the quartroon, will protect the individual against the deadly influence of climates, which the pure white man cannot endure. For example, if the population of New England, Germany, France, England, etc., come to Mobile, or New Orleans, a large proportion die with yellow fever, and of one hundred such individuals landed in New Orleans, at the commencement of an epidemic of yellow fever, probably half would fall victims to it. On the contrary, negroes, under all circumstances, enjoy an almost perfect exemption from this disease, though brought in from our Northern States; and what is still more remarkable, the mulattoes (under which term we include all mixed grades) are almost equally exempt. I have seen many hundred deaths from yellow fever, but never more than three or four mulattoes, though we have hundreds exposed to it in Mobile. This is a curious fact, and shows how difficult is the problem of amalgamation.

Negroes die and would become extinct in New England, if cut off from immigration, as is clearly shown by published statistics.

It may be even a question whether the strictly white races of Europe are perfectly adapted to any climate in America. We nowhere find in the United States a population physically equal to that of Great Britain or Germany, and we recollect once hearing this remark strongly endorsed by Mr. Clay, though living amidst the best population of this country. Knox, in his work on Races, says that the Anglo-Saxon race would become extinct in America, if cut off from immigration. Now we are not prepared to endorse this assertion, but as nature works not only through a few generations, but through thousands of years, it is impossible to conjecture what time may do. It would be a curious enquiry to investigate the causes which have led to the destruction of ancient empires, and the disappearance of populations, as Egypt, Assyria, Greece, Rome, etc. Many ancient nations were colonies from distant climes, and may have wasted away under the operation of laws which have acted slowly and surely. The mingling of different bloods, too, under the law of hybridity, may also have played an important part. Mr. Layard tells us that a few wandering tribes only are now

seen around the sites of the once mighty Nineveh and Babylon, and that no one can now say what race constructed those stupendous cities. But let us return from this digression.

To this instinctive love of primitive locality, and instinctive dislike to other lands, and other people, must we mainly attribute the fixedness of the unhistoric types of men. The greater portion of the globe is still under the influence of this law. In America, the Aboriginal barbarous tribes cannot be persuaded or forced to change their habits, or to successful emigration; they are melting away from year to year, and of the millions which once inhabited that portion of the United States east of the Mississippi river, all are gone but a few scattered families, and their representatives who have been removed by our Government to the Western frontier, are reduced to less than one hundred thousand; and it is as clear as the sun at noon-day, that in a few generations more the last of these Red men will be numbered with the dead. We are constantly reading glowing accounts from missionaries, of the civilization of these tribes, but a civilized *full-blooded* Indian does not exist among them We see every day in the suburbs of Mobile, and wandering through our streets, the remnant of the Choctaw race, covered with nothing but blankets, and living in bark tents, scarcely a degree advanced above the brutes of the fields, quietly abiding their time—no human ingenuity can induce one to be educated, or to do an honest day's work; they are supported entirely by begging, and a little traffic of the squaws in wood. To one who has lived among the American Indians, it is in vain to talk of civilizing them. You might as well attempt to change the nature of the Buffalo.

The whole continent of America, with its mountain ranges and table lands—its valleys and low plains—its woods and prairies—presenting every variety of climate which could influence the nature of man, is inhabited by one great family that presents a prevailing type. Small and peculiar shaped crania,a cinnamon complexion, small feet and hands, black straight hair, wild, savage natures, etc., characterize them everywhere. There are a few trivial exceptions, which may be accounted for, particularly on the Pacific coast.

The eastern part of Asia presents a parallel case. From 65 degrees north latitude to the Equator, it presents the greatest inequalities of surface and climate, and is peopled throughout by the yellow, lank-haired Mongols, the darkest being at the North and the fairest at the South. Their crania, their instincts, their whole moral and physical char-

acter distinguishes them from the American race, which they most resemble.

The other half of this northern continent, that is to say Europe and the rest of Asia, may be divided into a northern and a southern division. The first extends from the Polar region to the 45th or 50th degree north, from Scandinavia to the Caspian Sea, and contains a group of men with light hair, complexion fair and rosy, and blue eyes. The second or southern division, running north-west and south-east, extends from the British Isles to Bengal, and the extremity of Hindostan, from the 50th degree to 8 or 10 degrees north. This vast area is covered by people with complexions more or less dark, oval faces, black smooth hair, and black eyes.

Now it is worthy of remark, that since the discovery of America, several centuries, the fair races have inhabited North America extensively, while the dark races, as the Spaniards, have inhabited South America, Mexico and Central America; both have displaced the Aboriginal races, and yet have made no approximation in type to the latter, nor does any one suppose that they would in a hundred generations. And so with the Negroes who have lived here through eight or ten generations. We have no more reason to suppose that an Anglo-Saxon will turn to an Indian, than imported cattle to Buffaloes. We shall show in another chapter, that the oldest Indian crania from the Mounds, some of which are probably several thousand years old, bear no resemblance to those of any race of the old continent.

When we come to Africa, we shall see various races of peculiar types occupying their appropriate zoological provinces, which they have inhabited for at least 5000 years. But we have to develop some new views respecting Egypt in another place, when we shall take up the races of this continent in extenso.

Taking our leave for the present of continents, let us glance for a moment at New Holland. This immense country, extending from latitude 10 degrees to 40 degrees South, has a special creation—its population, its animals, birds, insects, plants, etc., are entirely unlike those found in any other part of the world. The men present altogether a very peculiar type—they are black, but without the features, woolly heads, or other physical characters of the negroes. Beyond, we have Van Dieman's Land, extending to 44 degrees of South latitude, which presents a temperate climate not unlike that of France; and what is

remarkable, its inhabitants, unlike those of New Holland, are black, with frizzled heads, and very like the African races.

Not far from New Holland, under the same parallels, and extending even farther South, we find New Zealand, where commences the beautiful Polynesian race, of light brown color, smooth black hair, and almost oval face. This race extends from 50 degrees South, descends to the Equator, then mounts to the Sandwich Islands, to 20 degrees North, scattered over islands without number, encircling almost half the globe, without presenting any material difference in their color, forms—in a word, in their zoological characters.

India affords a striking illustration of the fallacy of arguments drawn from climate. We there find people of all shades, from fair to black, who have been living together from time immemorial. We have the well known testimony of Bishop Heber and others, on this point; and Desmoulins says, "The Rohillas, who are blonds, and situated South of the Ganges, are surrounded by the Népauliens with black skins—the Mahrattas with yellow skins—and the Bengales of a deep brown—and yet the Rohillas inhabit the plain, and the Népauliens the mountains."* Here we have either different races inhabiting the same climate for several thousand years without change; or the same race assuming every shade of color. The advocates of unity may choose either horn of the dilemma.

We might thus go on and recite innumerable facts to the same effect, but it would be superfluous.

The different shades of color in races, have been regarded by many naturalists as one of their most distinctive characters, and have served as the basis of numerous classifications; but M. Jacquinot thinks too much importance has been attached to them, and that they cannot be relied upon. For example, all the intermediate shades, from white to black, are found in those races of oval face, large facial angle, smooth hair, etc., which Blumenbach has classed under the head *Caucasian*. Commence, for example, with the fair Fins and Slavonians with blond hair, and pass successively through the Celts, Iberians, Italians, Greeks, Arabs, Egyptians, and Hindoos, till you reach the inhabitants of Malabar, who are as black as negroes.

Among the Mongols, too, we find various shades. Among the Africans there exist all the tints from the pale yellow Hottentots, Bushmen and Cafirs, to the coal-black negro of the Tropic and confines of

* Des Races Humaines. P. 169.

Egypt. In a word, the black color is found in Caucasians, Negroes, Mongols, Australians, etc., while the yellow or brown is seen through all the above types, as well as in the Americans, Malays and Polynesians.*

In the present mixed state of the population of the earth, it is perhaps impossible to determine how far this opinion of Jacquinot is correct. We have certainly many examples to prove that color has been permanent for ages; while, on the contrary, it is impossible to prove that the complexion of a pure primitive stock has been changed by climate. As before stated, we conceive that too much importance has been given to arbitrary classifications, and that the Caucasian division may include innumerable primitive stocks. This we have illustrated particularly in the history of the Jews, whose type has been permanent for at least 3000 years. We have no reason to believe that this race sprang from, or ever originated, any other.

We therefore not only regard the great divisions of Caucasian, Mongol, Malay, Negro and Indian, as primitive stocks, but History, Anatomy, Physiology, Phsychology, Analogy, all prove that each of these comprehend many original subdivisions.

We here beg leave to acknowledge our large indebtedness to Mr. Agassiz, who has given the most masterly view of the geographical distribution of animals to be found in our language, or perhaps any other. Not a line can be retrenched from his condensed articles,† without inflicting a wound, and we take much pleasure in referring the reader to them. He shows, conclusively, that there are not only numerous centres of creation, or zoological provinces, for our geological epoch, but that these provinces correspond, in a surprising manner, with those of former epochs; thus showing that the Creator has been working after one grand and uniform plan through myriads of years, and through successive creations. He says: "It is satisfactorily ascertained at present, that there have been many distinct successive periods, during each of which large numbers of animals and plants have been introduced upon the surface of our globe, to live and multiply for a time, then to disappear and be replaced by other kinds. Of such distinct periods—such successive creations—we know now *at least about a dozen*, and there are ample indications that the inhabitants of our

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* Jacquinot—Op. Cit.

† See Christian Examiner.

globe have been successively changed at more epochs than are yet fully ascertained."

In the earliest formations, but few and distant points of land had emerged from the mighty deep, the created beings were comparatively few, simple, and more widely disseminated, but yet we find many distinct species, adapted to localities where they were brought into existence. In the more recent fossil beds, we find a distribution of fossil remains which agree in a most remarkable manner with the present geographical arrangement of animals and plants. The fossils of modern geological periods in New Holland, are the same types as most of the animals now living there. The fossils of Brazil belong to the same families as those found there at the present day; though in both cases the fossil species are distinct from living ones. If, therefore, the organized beings of the ancient geological periods had arisen from one central point of distribution, to be dispersed, and finally to become confined to those countries where their remains are found in a fossil condition, and if the animals now living had also spread from a common origin, over the same districts, and had these been circumscribed within equally distinct limits, we should be led to the unnatural supposition, that animals of two distinct creations, differing specifically throughout, had taken the same lines of migration, had assumed finally the same distribution, and had become permanent in the same regions without any other inducement for removal and final settlement, than the mere necessity of covering more extensive ground, after they had become too numerous to remain any longer together in one and the same district. (*Agassiz.*)

Now it would certainly be very unreasonable to attribute such instincts to animals, if such a line of march were possible; but the very possibility however vanishes, when we reflect upon the wide-spread physical impediments which oppose such migrations, and that neither the animals or plants of one province can be carried to a distant one. Neither Arctic animals or plants can be propagated in the Tropics, or vice versa. The whole of the Monkey tribe belong to a hot climate, are retained there by their temperaments and instincts, and cannot by any ingenuity of man be made to exist in Greenland. The same rule applies to the men of the Tropics and Arctic.

That the animals and plants now existing on the earth must be referred to many widely distant centres of creation, is a fact which might, if necessary, be confirmed by an infinite number of other facts; but it is a point which will be conceded by every well-informed naturalist, and

we have only deemed it necessary to illustrate it at all because this volume may fall into the hands of some, who, it is presumed, are not informed on such matters.

Another question of much interest to our present investigation is this. Have all the individuals of *each species* of animals, plants, etc., descended from a single pair? Were it not for the supposed authority of Genesis to this effect, the idea of community of origin would hardly have occurred to any reflecting mind, for it involves many insuperable difficulties; and we can see no reason why the Creator should have adopted such a plan. Is it reasonable to suppose that the Almighty would have created one seed of grass, one acorn, one pair of locusts, of bees, of wild pigeons, of herrings, of buffaloes, as the only starting point of these wide-spread species?

The instincts and habits of animals differ widely. Some are solitary, except at certain seasons; some go in pairs; others in herds or shoals. The idea of a pair of bees, locusts, herrings, buffaloes, is contrary to the nature and habits of these creatures, as it is contrary to the nature of oaks, pines, birches, etc., to grow singly, and to form forests in their isolation. In some species males—in others females predominate; and in many it would be easy to show, that if the present order of things was reversed, the species could not be preserved—locusts and bees, for example; the former come in myriads, and by far the greater number of those produced are destroyed; and though they have been existing for ages, naturalists cannot see that they have increased, nor can they conceive that one pair could continue the species, with the number of chances opposed. For the bees, it is natural to have but one female for a whole hive, to whom many males are devoted, and a large number of drones.

Again, Mr. Agassiz gives the following striking illustration: "There are animals who are impelled by nature to feed on other animals. Was the first pair of lions to abstain from food until the gazelles and other antelopes had multiplied sufficiently to preserve their races from the persecution of these ferocious beasts?" So with other carnivorous animals, birds, fishes, etc. We now have all the various species scattered through the land and water in harmonious proportions, in which they may continue for ages to come.

Hybridity has been considered a test for species, but when we come to this point we shall show, that in many instances what have been called *varieties* are really distinct species, and that hybridity is no test. All the varieties of dogs and wolves, for example, are prolific *inter se*,

yet we shall prove that many of them are specifically distinct, or descended from different primitive stocks in distant points of the globe. Mr. Agassiz has beautifully illustrated this point by the natural history of lions. These animals present very marked varieties, extending over an immense region of country. They occupy nearly the whole continent of Africa, a great part of Southern Asia, and formerly Asia Minor and Greece. Over this immense extent of country several varieties of lions are found, differing materially in their physical characters; they too are placed at points distant from each other, and surrounded by entirely distinct Faunæ and Floræ, which goes far towards confirming the idea of totally distinct zoological provinces. It will readily be conceded by naturalists, that all the animals found in such a province, and nowhere else, must have been created there, and though the lions may possess in common that assemblage of characters, which has been considered as evidence af community of *species*, yet it by no means necessitates community of *origin*. The same question here arises as in the varieties of mankind, with regard to the definition of the term species. We hold that a variety which is permanent, and which resists without change all known external causes, must be regarded as a primitive species—else we have no criteria by which we can be governed on this point.

The monkeys afford another admirable illustration, and are doubly interesting from the fact of their near approach to the human family. The following extract is one of peculiar interest:

"As already mentioned, the monkeys are entirely tropical. But here again we notice a very intimate adaptation of their types to the particular continents; as the monkeys of tropical America constitute a family altogether distinct from the monkeys of the old world, there being not one species of any of the genera of Quadrumana, so numerous on this continent, found either in Asia or Africa. The monkeys of the Old World, again, constitute a natural family by themselves, extending equally over Africa and Asia; and there is even a close representative analogy between those of different parts of these two continents, the orangs of Africa, Chimpanzee and Orilla, corresponding to the red orang of Sumatra and Borneo, and the smaller long armed species of continental Asia. And what is not a little remarkable is the fact, that the black orang occurs upon that continent which is inhabited by the black human race, while the brown orang inhabits those parts of Asia over which the chocolate colored Malays have been developed. There is again a peculiar family of Quadrumana confined to the Island of Madagascar, the Makis, which are entirely peculiar to that Island and the eastern coast of Africa oposite to it, and to one spot on the western shore of Africa. But in New Holland and the adjacent islands there are no monkeys at all, though the climatic conditions seem not to exclude their existence, any more than those of the large Asiatic Islands, upon which such high types of this

order are found. And these facts more than any other would indicate, that the special adaptation of animals to particular districts of the surface of the globe, is neither accidental nor dependent upon physical conditions, but is implied in the primitive plan of creation itself. Whatever classes we may take into consideration, we shall find similar adaptations, and though perhaps the greater uniformity of some families renders the difference of types in various parts of the world less striking, they are none the less real. The carnivora of tropical Asia are not the same as those of tropical Africa, or those of tropical America. Their birds and reptiles present similar differences. The want of an ostrich in Asia, when we have one, the largest of the family, in Africa, and two distinct species in Southern America, and two cassowaries, one in New Holland and another in the Sunda Islands, shows this constant process of analogous or representative species, repeated over different parts of the world, to be the principle regulating the distribution of animals, and the fact that these analogous species are different, again, cannot be reconciled to the idea of common origin, as each type is peculiar to the country where it is now found. These differences are more striking in tropical regions than anywhere else. The Rhinocerao of the Sunda Islands differs from those of Africa, and there are none in America. The Elephant of Asia differs from that of Africa, and there is none in America. One Tapir is found in the Sunda Islands; there is none in Africa, but we find one in South America, etc. Everywhere special adaptation, particular forms in each continent, an omission of some allied type here, when in the next group it occurs all over the zone."

Mr. Agassiz has so well expressed his opinion on another point, that we cannot resist the temptation of making an additional extract.

"We are thus led to distinguish special provinces in the natural distribution of animals, and we may adopt the following division as the most natural. First, the Arctic province, with prevailing uniformity. Second, the temperate zone, with at least three distinct zoological provinces; the European Temperate Zone, west of the Ural Mountains; the Asiatic Temperate Zone, east of the Ural Mountains; and the American Temperate Zone, which may be subdivided into two, the Eastern and Western, for the animals east and west of the Rocky Mountains differ sufficiently to constitute two distinct zoological provinces. Next, the Tropical Zone, containing the African Zoological province, which extends over the main part of the African continent, including all the country south of the Atlas and north of the Cape colonies; the tropical Asiatic province, south of the great Himalayan chain and including the Sunda Islands, whose Fauna has quite a continental character and differs entirely from that of the Islands of the Pacific as well as from that of New Holland; the American Tropical province, including Central America, the West Indies and tropical South America. New Holland constitutes in itself a special province, notwithstanding the great differences of its northern and southern climate, the animals of the whole continent preserving throughout their peculiar typical character. But it were a mistake to conceive that the Faunæ or natural groups of animals are to be limited according to the boundaries of the mainlands. On the contrary, we may trace their natural limits into the ocean, and refer to the temperate European Fauna the eastern shores of the Atlantic, as we refer its western shores to the American temperate Fauna. Again, the eastern shores of the Pacific belong to the Western American Fauna, as the western Pacific shores belong to the Asiatic Fauna. In the Atlantic ocean there

is no peculiar oceanic Fauna to be distinguished; but in the Pacific we have such a Fauna, entirely marine in its main character, though interspread with innumerable islands, extending east of the Sunda Islands and New Holland to the western shores of tropical America. The islands west of this continent seem, indeed, to have very slight relations in their zoological character with the western parts of the mainland. South of the tropical zone we have the South American temperate Fauna and that of the Cape of Good Hope, as other distinct zoological provinces. Van Dieman's Land, however, does not constitute a zoological province in itself, but belongs to the province of New Holland by its zoological character. Finally, the Antarctic Circle encloses a special zoological province, including the Antarctic Fauna, which in a great measure corresponds to the Arctic Fauna in its uniformity, though it differs from it in having chiefly a maritime character, while the Arctic Fauna has an almost entirely continental aspect.

"The fact that the principal races of man, in their natural distribution, cover the same extent of ground as the same zoological provinces, would go far to show that the differences which we notice between them are also primitive," etc.

These facts prove conclusively that the Creator has marked out both the Old and New Worlds into distinct zoological provinces, and that the Faunæ and Floræ are independent of climate or other known physical causes, and it is equally clear that in this geographical distribution there is evidence of a plan—of a design ruling the climatic conditions themselves.

It is very remarkable, too, that while the races of men, and the Fauna and Flora of the Arctic region present great uniformity, they follow in the different continents the same general law of *increasing dissimilarity* as we recede from the Arctic and go South, irrespective of climate. We have already shown, that as we pass down through America, Asia and Africa, the further we go the *greater is the dissimilarity* of their Faunæ and Floræ to their very terminations, even when compared together in the same latitudes or zones; and an examination will show, that the differences of types in the human family become more strongly marked as we recede from the Polar regions, and reach their greatest extremes at those terminating points of continents, where they are most widely separated in distance, though occupying nearly the same parallels of latitude, and nearly the same climates. For instance, the Fuegians of Cape Horn, the Hottentots and Bushmen of the Cape of Good Hope, and the inhabitants of Van Dieman's Land, are the tribes which, under similar parallels, differ most widely. The differences of races are scarcely less marked in the tropics of the two continents, viz., the Negro in Africa, the Indian in America, and the Papuan in Polynesia. In the temperate zone, we have in the Old World the Mongolians and

the Caucasians, and Indians in America, living in similar climates, yet wholly dissimilar themselves.

History, traditions, monuments, osteological remains, etc., all show that races have occupied substantially the same zones or provinces from time immemorial. Since the discovery of the mariner's compass mankind have been more disturbed in their primitive seats; and with the increasing facilities of communication by land and sea, it is impossible to predict what changes coming ages may bring. The Caucasian races, which have always been the representatives of civilization, are those alone which have extended over and colonized all parts of the globe, and much of this is the work of the last three hundred years. The Creator has implanted in this group of races an instinct, which in spite of themselves, drives them through all difficulties, to carry out their great mission of civilizing the earth; it is not reason, or philanthropy, which urges them on, but it is destiny. When we see great divisions of the human family, progressing in numbers, spreading in all directions, encroaching by degrees on all other races, wherever they can live and prosper, and gradually supplanting them, is it not reasonable to conclude that they are fulfilling a law of nature?

We have always maintained *diversity* of origin for the whole range of organized beings. If it be conceded, as it is on all hands, that there have been many centres of creation instead of one, what reason is there to suppose that any one race of animals has sprung from a single pair instead of many, and as we have written many years ago, "if it be conceded that there were two primitive pairs of human beings, no reason can be assigned why there may not have been hundreds."

Mr. Agassiz thus expresses himself on this point:

"Under such circumstances, we should ask if we are not entitled to conclude that these races must have originated where they occur, as well as the animals and plants inhabiting the same countries, and have originated there in the same numerical proportions and over the same area in which they now occur; for these conditions are the conditions necessary to their maintenance, and what among organized beings is essential to their temporal existence, must be at least one of the conditions under which they were created.

"We maintain, that like all organized beings, mankind cannot have originated in single individuals, but must have been created in that numerical harmony which is characteristic of each species; men must have originated in *nations*, as the bees have originated in swarms, and as the different social plants have covered the extensive tracts over which they naturally spread."*

We remarked in the commencement of this chapter that M. Agassiz

* See the Christian Examiner.

had presented his views in such a condensed and masterly manner, that it would be impossible to attempt a resumé, or to do him justice without repeating the whole of his article, and although we have already used him freely, we cannot resist the temptation of giving a concluding paragraph, as our object is more to give a synopsis or posting up to date of the facts illustrative of our subject, than to claim any great originality —if we can bring the truth out our object is attained.

"The circumstance that wherever we find a human race naturally circumscribed, it is connected in its limitation with what we call in natural history a zoological and botanical province—that is to say, with the natural limitation of a particnlar association of animals and plants,—shows most unequivocally the intimate relation existing between mankind and the animal kingdom in their adaptation to the physical world. The Arctic race of men, covering the treeless region near the Arctics in Europe, Asia and America, is circumscribed in the three continents within the limits very simllar to those occupied by that particular combination of animals which are peculiar to the same tracts of land and sea.

"The region inhabited by the Mongolian race is also a natural zoological province, covered by a combination of animals naturally circumscribed within same regions The Malay race covers also a natural zoological province. New Holland again constitutes a very peculiar zoological province, in which we have another particular race of men. And it is further remarkable, in this connection, that the plants and animals now living on the continent of Africa, south of Atlas, within the same range within which the negroes are naturally circumscribed, have a character differing widely from that of the plants and animals of the northern shores of Africa and the valley of Egypt; while the Cape of Good Hope, within the limits inhabited by Hottentots, is characterized by a vegetation and a Fauna equally peculiar and differing in its features from that over which the African race is spread.

"Such identical circumscriptions between the limits of two series of organized beings so widely differing in man and animals and plants and so entirely unconnected in point of descent, would, to the mind of the naturalist, amount to a demonstration, that they originated together within the districts which they now inhabit. We say that such an accumulation of evidence would amount to demonstration; for how could it, on the contrary, be supposed that man alone would assume new peculiarities, and features so different from his primitive characteristics, whilst the animals and plants circumscribed within the same limits would continue to preserve their natural relations to the Fauna and Flora of other parts of the world? If the Creator of one set of these living beings had not also been the Creator of the other, and if we did not trace the same general laws throughout nature, there might be room left for the supposition, that while men inhabiting different parts of the world originated from a common centre, the plants and animals associated with them in the same countries originated on the spot. But such inconsistencies do not occur in the laws of nature.

"The coincidence of the geographical distribution of the human races with that of animals. the disconnection of the climatic conditions where we have similar races, and the connection of climatic conditions where we have different human races, show

further, that the adaptation of different races of men to different parts of the world must be intentional, as well as that of other beings; that men were primitively located in the various parts of the world they inhabit, and that they arose every where in those harmonious numeric proportions with other living beings, which would at once secure their preservation and contribute to their welfare. To suppose that all men originated from Adam and Eve, is to assume that the order of creation has been changed in the course of historical times, and to give to the Mosaic record a meaning that it never was intended to have. On that ground, we would particularly insist upon the propriety of considering Genesis as chiefly relating to the history of the white race, with special reference to the history of the Jews."

Zoologically, the races or species of mankind obey the same general laws which govern other animals—they have their geographical points of origin, and are adapted to certain external conditions which cannot be changed with impunity. The natives of one zone cannot be transferred to another without deteriorating physically and mentally. Races, too, are governed by certain physiological influences, which differ among the species of mankind, as do instincts differ among the species of the lower animals. These physiological characters form one of the great mysteries of human nature; they seem often to work in opposition to the physical necessities of races, and to drive individuals and nations beyond the confines of human reason. We see around us daily, individuals obeying blindly their psychological instincts, and one nation reads of the causes which have led to the decline and fall of other empires without profiting by the lessons.

The laws of God work not only through a few thousand years, but through eternity, and we cannot see the why or wherefore of what passes in our brief day. Nations and races, like individuals, have each a special destiny; some are born to rule, and others to be ruled, and such has always been the history of mankind. No two well-marked races can live together on equal terms. Some races, too, are destined to live and prosper for a time till the destroying race comes, which is to exterminate and supplant them. See how the Aborigines of America are fading away before the races of Europe.

That group of races which has been comprehended under the generic term Caucasian, have in all ages been the rulers, and it requires no prophet's eye to see that they are destined eventually to rise and hold every foot of the globe where climate does not interpose an impenetrable barrier—no philanthropy, no legislation, no missionary labors can change this law; it is written in man's nature by the hand of his Creator.

While the mind is thus speculating on the physical history of races

and the speedy extermination of some of them, other problems start up in the distance, whose solution is far beyond the reach of human foresight. We have already hinted at the mysterious disappearance of many of the great races and nations of antiquity.

When the inferior types of mankind have fulfilled their destinies and passed away, and the remaining ones have mingled their blood, wandered from their primitive zoological provinces, and overspread the earth, what will be the ultimate result? May not that law of nature which so often forbids the mingling of species here do its work of destruction, and at some future day leave the fossil remains of man, alone, to tell the tale of his existence on earth.

P. S. The Natural History of Mankind is now attracting great attention in all parts of the world, and there is no division of it more important or interesting than the Aborigines of America. These races are fast fading away and their remains being destroyed; and the means of investigation thus diminishing from day to day. It devolves more particularly upon the gentlemen of the medical profession of our country to collect and preserve every thing which can throw light on the subject, and I am disposed to do all I can to this end. I am particularly desirous of making a collection of Indian skulls, of either living or dead races, and more especially those from ancient burial places, mounds, etc., and if the members of the profession could send me specimens, they would not only greatly oblige me personally, but would be aiding in the advance of science.

V.—EFFECTS OF QUININE ON THE PULSE—OPIUM-EATING, etc.

BY WM. M. BOLING, M. D., OF ALA.

[These cases were prepared for the press, we are informed by the author, some months since; but they did not reach us until some time in March of this year. *Ed.*]

In the Transylvania Medical Journal for August, 1850, one of the Editors, Prof Bullitt, after suggesting a theory as to the modus operandi of the Sulphate of Quinine, in the cure of miasmatic diseases, remarks: "This explanation would not answer, if it could be proved that the pulse may be depressed much below its normal standard; but this has not been done. Although southern practitioners speak of the possibility of accomplishing this, we have met with no cases reported by them

in which any thing more was claimed, than the reduction of the pulse from the state of febrile frequency to a standard approaching the normal."

Although Southern practitioners may, in but very few instances, have thought it worth while to report cases in detail, in which the pulse has been reduced in frequency below the normal standard by the operation of Quinine, a few such may be found on record; and I have no hesitation in saying that they are of daily occurrence in the hands of hundreds of Southern practitioners. Indeed, should any Southern practitioner be heard to say that he had never observed such an effect from Quinine, there are many whom it would be difficult to convince, that he appreciated its advantages, or could avail himself of its benefits to the full extent in the treatment of our febrile and inflammatory diseases.

I will, as briefly as possible, present from my case books, a few cases of the kind.

CASE I.

This patient was a negro girl about nine years old; seen first October 13th, 1841; her disease, comatose remittent fever. At the time of my visit she was in the third paroxysm. I ordered enemata—each to contain five grains of Quinine, to be given every third hour during the exacerbation; in the intermission, she was to take by the mouth four grains every third hour, till three doses were given, and then it was to be given in smaller doses at longer intervals. During the exacerbation, (the case was a somewhat peculiar one) the pulse was 80—about the natural standard. When I saw her the next day, under the influence of the Quinine, her pulse was 68. The paroxysm did not return.

CASE II.

Was a pretty severe case of bronchitis, in a strong, muscular man, about 45 years old; seen first December 25th, 1843. On the 2d of January his pulse was 70, and he was taking six grains of Quinine, two grains of Blue Mass, and the eighth of a grain of Tartar Emetic every third hour.

On the 3d his pulse was 68, and on the 4th it was 64; the same prescription being regularly continued.

These two cases were reported more in detail in the American Journal of Medical Sciences for July, 1844, pages 105 and 109. There is a typographical error in the prescription just referred to; 4 grains instead of 24 grains being put down.

CASE III.

A negro man 45 years old, laboring under a very violent attack of pneumonia, for which I visited him first March 29th, 1844. On the 2d of April (he having been taking for several days 8 grains of Quinine every third hour) his pulse was 64. On the 3d the same,—the prescription being continued every fourth hour. On the 4th his pulse was 57; on the 5th 60; on the 6th 54—the 8 grain doses of Quinine having been continued regularly every fourth hour. He was improving, and the doses were now given at intervals of six hours.

CASES IV.

A stout negro man, 35 years old, laboring under a severe attack of pneumonia, for which I visited him first March 6th, 1844. For several days prior to the 11th, he took, with other remedies, Quinine, in five, eight or ten grain doses every fourth hour, and we find his pulse at 60. Quinine continued, and on the 12th his pulse was 62. On the 13th (the Quinine being continued in six grain doses every sixth hour) his pulse was 54. As he was improving, the medicine was given at gradually lengthened intervals, till his recovery.

CASE V.

A stout negro man, 27 years old, laboring under a severe attack of dysentery and pneumonia; I visited him first on the 4th May, 1844, though he had been sick since the 28th April. On the 6th, (Quinine having been given in six grain doses, every sixth hour) his pulse was 64. In the evening it was 86. Nine grains every sixth hour, was the dose directed, and on the 9th his pulse was 60. Six grain doses every fourth hour were continued through the day, and the same every sixth hour during the night. On the morning of the 8th his pulse was 50. Discharged on the 10th.

The three last cases were published more in detail in the Western Journal of Medicine and Surgery for December, 1844. Many more such cases, I have no doubt, might be found scattered through my case books, were it necessary to publish more, or had I leisure to search them out.

Generally, I have kept daily records of only the more severe cases. In cases of less severity, there is generally much less difficulty in controlling the pulse. The doses, as above given, to many Southern practitioners, will appear small rather than large; and in most of the cases a further reduction of the pulse might have been produced by an increase in the quantity of the medicine. A certain effect on the pulse—

its reduction to something like the healthy standard, is a principal aim with me, from the use of Quinine in the treatment of the phlegmasiæ; and the quantity is regulated by the effect produced. I give generally the smallest doses capable of producing this effect. When 6 or 8 grains every third or fourth hour fail, I prescribe larger doses, say 10 or twelve grains. The pulse being once reduced by the larger doses, smaller ones will generally suffice to keep it at the lowest standard. It has rarely been an object with me to reduce the pulse below the healthy standard, and generally in the cases in which this has happened, it has been entirely accidental.

CASE VI.

Pneumonia. A negro man, 26 years old, having had "a cold" for several days, was taken on the night of August 8th, 1844, with a chill, followed by a troublesome cough, and pain in the right side. He has taken a dose of calomel and oil; bowels loose; chest and head hot; extremities cool; dulness on percussion, with absence of respiratory murmur over lower third of right lung. The respiratory murmur is feeble in the remainder of the right lung, and slightly purile in the left; expectoration viscid and of a brownish tinge; pulse 92 and corded. He was ordered 5 grains of calomel and a quarter of a grain of opium, to be taken immediately. Sulphate of Quinine and Ex. of Cinchona, of each 22½ grains, to be divided into nine parts, two of which also are to be taken immediately, and one every second hour.

14*th*. Pulse 90; has had several evacuations; otherwise the same. Directed Sulphate of Quinine 32 grains, to be divided into eight parts, two of which are to be taken immediately, and one every two hours after. Also, Calomel grains v, Morphia one third of a grain, to be taken at bed-time.

18*th*. Pulse 88; bowels loose; dulness less extensive; cough and pain continue. To take five grains of Calomel and half a grain of Opium now, and the same at bed-time; also, four grains of Quinine every second hour.

16*th*. Pulse 90; continue the Quinine. Evening, pulse 84; cough, dullness, etc., abating. Continue the Quinine; also the Calomel and Opium.

17*th*. Pulse 48; several evacuations; much improved; omit the medicine.

Evening. Pulse 47; recovered rapidly.

CASE VII.

Pneumonia. Is long and need not be given in detail. Mr. Gay,

about 45 years old, had on the 13th December, 1844, a chill, followed by cough and severe pain in the left side. I saw him first on the 18th. His fever has continued high ever since the chill. His cough is frequent, and attended with a tough, viscid, though not bloody expectoration. Severe pain in the side. Dulness on percussion over the lower part of left lung. Bronchophony and bronchial respiration. Mucous rale in the right. He was directed to take small doses of Blue Mass, and six grains of Quinine every fourth hour.

On the 21st, pulse 70 ; crepitant rale of resolution heard in the formerly hepatized portion of the left lung. Expectoration free, and of a yellowish brown tinge. Continue the Quinine.

In the evening, pulse 64. Continue Quinine.

22*d*. Pulse 61. Continue Quinine.

23*d*. Pulse 57. Continue Quinine.

24*th*. Pulse 58. Dulness much less extensive. Continue the Quinine.

He rapidly recovered—the pulse for several days beating from 68 to 66.

In a few cases, under certain circumstances, I give a single dose at first of 20 or 30 grains, and afterwards keep up the effect by the regular administration of smaller doses.

OPIUM-TAKING.

In the London Lancet for August, a correspondent, over the signature of Medicus, asks, "Is it possible to reform a person who has long been addicted to the practice of taking opium?" * * * "Are we to consider entire abstinence impossible when the practice has been indulged in upwards of two years?" * * * "Should the patient be advised to leave it off totally, and at once, or do you recommend a gradual diminution of the dose?"

To these enquiries, in the succeeding number of the Lancet, we find several answers. One correspondent advises the morphia to be withdrawn gradually, and to substitute in its stead small doses of the Tincture of Lobelia and the Tartrate of Antimony. Another says, that "it is no more possible to reform a person who has been long addicted to the practice of taking opium, than it is to reform a patient who is paralyzed ;" (!) but recommends alcohol as an antidote ; and mentions the case of a gentleman who was cured by being intoxicated with claret

two evenings in succession, and put to bed in that condition. Another, however, who had long been addicted to the use of opium, observes, that among other things, he had taken brandy to excess, without relief. Still another, in his own case, adopted the following plan. He prepared three pints of a solution of morphine, and each time, on taking out his daily dose, replaced the quantity removed with water, and succeeded by thus very gradually reducing the strength of his dose.

I have had two cases of opium-eating to treat. The first, a delicate nervous female, fell into the habit some eight or nine years ago, of taking morphia for the relief of neuralgic pains, and continuing the habit after the cause which first led to it was removed, at the end of about six or seven years she consumed daily from six to eight grains of morphia. I attempted the immediate suspension of the habit, but found it impossible, so great was the suffering, both physical and mental. Feelings of the utmost wretchedness, prostration, excessive suffering from pains in the limbs, trembling, cold sweat, and small and thready pulse occurred. The attempt was abandoned, and I adopted a plan similar to the one recommended in the last case. After testing the matter, I ascertained that she could get along, without much suffering, on a dose twice a day of one grain. I prepared six ounces of a solution, containing a grain to the drachm, and advised her to take a teaspoonful twice a day, and each time to replace the quantity removed with water. The strength of the solution, however, seemed to be diminished too rapidly, for after a few days, considerable suffering for lack of the stimulus occurred. I then prepared six ounces of a weaker solution, and instead of water, replaced each dose from it. After this was used, I prepared a still weaker solution, and used it in the same way. When this was gone, the dose was replaced by water; and thus, by very gradually reducing the strength of the solution, the cure was completed in three or four months.

The other was the case of a gentleman, otherwise in good health, who had thoughtlessly fallen into the habit of taking opium in various forms, say to the amount of three or four grains a day; but for something less than a year. I suggested to him the gradual withdrawal of the drug in the manner just mentioned; or its immediate suspension, and the use of other agents, with the view of counteracting the depression following. He chose to attempt the latter, and after suffering greatly, mentally and physically, for three or four months, during the greater part of which time he lay in bed, a cure was effected. Va-

rious remedies were tried, with the view of mitigating his suffering during the time. none of which seemed to produce any appreciable effect; porter, ale and lupulin excepted. It is not probable, however, that either of these remedies would be of any service to the porter-drinking Englishman.

VI.—THE NEGRO AND HIS DISEASES.

BY S. L. GRIER, M. D., OF MISS.

In calling attention to a few of the diseases which may be considered peculiar to the negro race, it will not be necessary to enter upon the question so much vexed in our day, as to whether the human race is derived from one original stock, or from a diverse species. For our present purpose it is sufficient, that different *varieties* are universally acknowledged to exist, and we suppose it will be quite as readily conceded that these varieties, however derived, are hardly more distinguished by temperament, personal appearance, language, customs, or habits of life, than by certain constitutional tendencies and liabilities to disease, which have descended with the sentence of death that was pronounced upon at least one pair of the original progenitors. Of the ethnological question involved, we, of course, have an opinion. We believe firmly in the Bible-taught doctrine of the unity of the human race, and that "God hath made of *one blood* all nations of men, for to dwell on all the face of the earth;" but some construe this differently, and however it may be, all will agree with us, that whether these races be derived from one or more original species, they are now characterized by such peculiarities of constitution and temperament, as to make the distinctive maladies of the negro race a subject of much practical importance to us, and worthy of a more pains-taking investigation than it has ever yet received from the hands of the medical profession of the South.

In the few observations we have to make in reference to the peculiar diseases of the negroes, our aim will be simply to express the wants of a portion of the Southern medical profession, in the hope that others, more capable, and whose appropriate vocation it is, will at least make an effort to supply the desideratum.

The first form of disease which assails the negro race among us is *Trismus*. The mortality from this disease alone is very great. No

statistical record, we suppose, has ever been attempted, but from our individual experience, we are almost willing to affirm that it decimates the African race upon our plantations within the first week of independent existence. We have known more than one instance in which, of the births for one year, one half became the victims of this disease, and that, too, in despite of the utmost watchfulness and care on the part of both planter and physician. Other places are more fortunate, but all suffer more or less, and the planter who escapes a year without having to record a case of Trismus Nascentium, may congratulate himself on being more favored than his neighbors, and prepare himself for his own allotment, which is surely and speedily to arrive. At least ninety per cent of the number of cases prove fatal, and yet for this affection, so common and so destructive to life, we doubt whether the first step has been made towards a successful treatment ; nor is it to be expected that the therapeutics of the disease can be established, while the pathology, not only of Trismus Infantum, but of all tetanic affections, remains involved in so much obscurity. True, the Eureka outcry has been heard over a variety of means and measures for the relief of this class of disease, but it has invariably been followed by a silence so ominous and suggestive of misplaced confidence, that any new discoveries of that stamp are unanimously submitted to the same test of time. The resemblance which Trismus Infantum bears to Traumatic Tetanus, has perhaps given rise to the opinion, that the exciting cause was to be found in the unhealed state of the umbilicus, and various applications, emollient and sometimes stimulating, are used to guard against its occurrence. The decided efficacy of these or any other prophylactic means, has yet to be demonstrated. We remember, too, that during our novitiate in New Orleans, we listened, with the medical class, to a very entertaining lecture delivered before the Physico-Medical Society, by Dr. Sims of Alabama, on the subject of Trismus Nascentium. The cause he referred to a displacement of the occipital bone, and consequent compression of the cerebellum, medulla oblongata, and the nerves arising in that vicinity. The treatment advocated by Dr. S. was the elevation of the depressed bone, with the necessary directions as to position, to prevent a recurrence of the exciting cause. We received these new views with much interest, made a note of the suggestions of Dr. S., and with an undoubting confidence in the progress of science, we felt armed on that point at least. We cannot say that our hopes have been fully realized. We soon had occasion to test this mode of treatment. The first few cases that fell into our hands, we omitted the

manipulations with the *awl*, not being able to make out the requisite indications for its use, and perhaps the natural timidity of a tyro may have made us averse to gouging the brain of tender infancy, but we zealously maintained for our patients the anti-trismal position until death closed the scene, and at the same time quenched all our sanguine expectations founded on the new mode of practice. If others have been more successful with it, or if Dr. Sims has been confirmed in his views by later experience, we would be pleased to hear of it, as the cure of Trismus is with us a matter of special interest. We are free to confess that we have nothing more effectual to propose in the management of this disease, and therefore are forced to fall back uyon a positive inability to treat a case of it with any rational hope of success. At every period of life the negro is liable to tetanic affections, and almost inevitably sinks under them. We are glad to learn that the quinine treatment is sometimes successful. We have had the misfortune to fail with it, except in one solitary instance, and the probability is, that it was but the *simulation* of tetanus we were then called upon to treat. The most favorable results in the treatment of these diseases that we have yet been advised of, was in the practice of the estimable and now lamented Dr. Volney Metcalf of Natchez. His reliance in tetanus was chiefly in the use of the hot sand-bath, combined with opiates internally. Under these means, he assured the writer some few years since, he had seen four cases in five recover, and one of these a case of Trismus Nascentium. His views on this subject are entitled to the more confidence, as he was, of all men, least disposed to what seems a besetting sin of the medical profession—a disposition to magnify into undue importance any particular plan of treatment which, in their hands, has for a time been attended with an unwonted degree of success. It is proper however to state, that Dr. M.'s mode of practice has not been found so efficient in the experience of some of his confreres.

The next disease peculiar to negroes in our climate, to which we would ask attention is *Marasmus*. We use this as a generic term, intending it to embrace a class of diseases to which negro children are liable between the second and fifth year, and though second to Trismus in regard to time and relative mortality, it has the precedence in point of frequency. After the first period of ten days has elapsed, the child is absolutely safe from the ravages of Trismus, and during the period of first dentition is comparatively free from any disease that might be styled peculiar; but after it is removed from the breast, and generally in the second or third year, it falls subject to the disease we have called *Marasmus*, in the absence of a more rigid nomenclature. It is literally

a "wasting away"—a tabes. The peculiar affection of the mesentery known to us as mesenteric consumption, may be classed with it, but in a majority of cases no such local affection exists, nor does an autopsical examination reveal any signs of the tubercular diathesis. No disease is more common among negro children, nor is there any attended with a greater aggregate mortality. It corresponds in this respect with the cholera infantum of Northern cities. On some plantations, one half or more of the children fall victims to it. It is a fact palpable and striking, that while the increase of some places is so great, from ten, fifteen or twenty women having children, as to enable the planter in the course of as many years, to colonize and cultivate a new plantation from the natural increase alone, other places alike prolific, or nearly so, raise no children. They all die in infancy or early childhood, and it is this disease that we are endeavoring to describe which carries most of them off. It is styled provincially "the drooping disease of negro children," and this name expresses its character better, perhaps, than any we can apply to it. It commences with languor, fretfulness and loss of strength. The child gradually becomes emaciated, and along with this comes on increased appetency for food. Diarrhœa supervenes. The patient becomes rapidly anæmic. Soon we notice a serous effusion into the cellular tissue of the extremities. Sometimes with a tumid abdomen, or it may be a general anasarca. There is, too, irritation of the nostrils, the mouth often covered with apthæ, and in many cases extensive abrasion and sloughing of the skin in different parts. Here, if not sooner, fever complicates the case, and perhaps for the first time a physician is called in, who sees the child expire in a day or two, sometimes in convulsions, more frequently of asthenia—a total exhaustion of the vital powers; and upon a post mortem examination, no organic changes are found, except it be occasionally the mesenteric affection before referred to, and more rarely an engorged and hypertrophied condition of the liver. For the most part, we can determine nothing except a general state of anæmia. Evidently there is some lesion of nutrition, but upon what dependent is the question. We are inclined to the belief, that the exciting cause is in some functional derangement of the portal system, but can offer this only as a conjecture.

The treatment of this disease is a matter of much interest to those of us who are called to practice in several districts, and among that class of persons peculiarly liable to it. Our text-books and journals give us little aid in controlling it. Nor is it to be expected that they can afford us much assistance in regard to the therapia of a disease, of

the very existence of which they seem to be ignorant. True, in certain works that treat of the diseases incident to hot climates, we find it sometimes described, and like all diseases of that class, vaguely attributed to biliary derangement, and of course a mercurial treatment indicated; but in our modern authorities that profess to give us the latest improvements in pathology and practice, we find not a word concerning it. Neither Wood nor Watson make mention of it. Therefore we say, happy is the man who is independent of the schools and text-books and medical authorities of the day, and who can call to his aid other resources in the hour of need. In this disease, especially, does it behoove Southern practitioners to be a law unto themselves. Verily the gods on our medical Olympus will do little for the man who cannot put his shoulder to the wheel and help himself. It is not within the limits of our present purpose, nor do we profess to be able to make a scientific demonstration of the pathology of this disease. We are constantly called upon to treat, and may sometimes be able to contend with it, with a measurable degree of success, but we are reluctant to throw before our professional seniors the crudities of an empyrical practice, and therefore prefer to await the opinion of those to whom an ampler range of experience has given the right of priority in the discussion of this matter. True, it may be said that the primary cause of this affection will be found in the violation of some hygienic laws, and that it is the result of plantation mismanagement and maltreatment of negroes, which makes it so much more common and fatal on one place than another; but this does not make it at all less within the scope of medical enquiry; nor do we find it practically to relieve us from the responsibility its mortality entails upon us. The cause, the pathological phenomena which mark its course, through the various stages of development and progress, and the treatment, hoth prophylactic and curative, have yet, so far as we are acquainted with the subject, to be reduced to a scientific formula. At some future time we may have something to say on these points; for the present we dismiss the subject, and pass on to notice some of the other diseases prevalent among the slave population.

Invermination is a common affection of the negroes during childhood, as might naturally be expected. It frequently gives rise to secondary affections more serious and fatal;during the summer and autumnal months fevers are often produced from this cause; and at all seasons, convulsions, dysentery, and many disorders of the alimentary canal are likely to complicate the original disease. These cases will of course require their specific treatment; but there is a prophylactic measure resorted to on most well ordered plantations, which anticipates and averts this

whole train of evils, and which cannot be too earnestly recommended. It consists in the periodical administration of two or three successive doses of some anthelmintic preparation, generally a decoction of spigelia, chenopodium, or of the root of the melia azederach, and after this course a purgative dose. This is repeated at monthly periods, and according to some domestic authorities, at a particular phase of the moon. The special crisis in lunar affairs which favors these designs on the verminose tribes, has unfortunately escaped our memory.

The *Cachexia Africana*, or dirt-eating of negroes—the subjects of this peculiar affection are chiefly among the adults of the race, but it will generally be found that the habit has been formed in early life. On nearly every plantation persons will be found addicted to this habit, but in some sections of the country it is much more frequent than in others. Among those engaged in the cultivation of sugar cane it is more common than in the cotton-growing region. This grovelling propensity must have been brought from their native land by imported slaves; and the extreme avidity with which an African will pounce upon an earthworm, and other luxuries of the same class, is but a refinement of the same singular taste. Sometimes a dirt-eating mania will seem suddenly to take possession of the inhabitants of a place, and rage with almost epidemic violence. In one instance that came under our observation, a plantation was depopulated within the space of one or two years. It is rare, however, that we witness such ravages from this disease. Like the passion for alcoholic drinks, it has all grades of intensity—some are only moderate dirt-eaters, and are able to gratify the appetite without serious detriment either to health, or what they care more for —reputation. The suspicion of dirt-eating is considered among them as an indelible stain. There is no crime they commit more stealthily, and if charged with it, they will most pertinaciously, and even with their dying breath, deny it. In contrast with the class of moderate dirt-eaters, there are others, who seem to have no control over their appetite, and indulge in the pernicious practice with all the eagerness and relish of the incorrigible topers. They are the sots in this species of intemperance, and exerting no control over the grovelling taste, they with an awful rapidity anticipate their doom. "Like to like" is invariably a false principle, and in the attempt to feed on man's original elements, the poor negro soon returns "earth to earth."

The effect of dirt-eating upon the constitution, and the symptoms which indicate the indulgence of such a habit, are too well known to require a repetition here. All have noticed and can recognize at a glance, the peculiar physiognomy, the livid and ghastly expression of

countenance—a general anæmia prevails, the pulse is full, soft and bounding, partaking somewhat of the character of the hemorrhagic pulse —there is also the tumultuous beating of the heart, and a dyspnœa, brought on by the slightest exertion, which, in their phraseology, is termed "short-winded;" the tongue loses its natural color, and its blanched appearance gives one at first sight the idea of a coating; during the latter stage there is generally a dropsical effusion, either into the cavities of the body, or into the cellular tissues. The treatment of this disease is worthy of consideration; for, although it be mainly a moral rather than a physical disorder, the physician is expected to furnish a remedy. Drugs will not be found of any service in this complaint. No medication of this sort will be at all available, while the producing cause remains in operation. The habit must be broken, and then the natural restorative powers of the system will be sufficient to effect a cure. This is, of course, a *sine qua non* in the treatment, and it is folly to talk of dosing it after the manner of a pharmacopœia. Something of this kind might indeed be offered in the shape of a substitute. We have heard of the good effects of carbonate of iron given for this purpose, and we fancy the use of tobacco might serve a similar purpose. The latter would be comparatively harmless, as the race is not of a temperament to be affected by its use. The constant supply of it by the planter would at least furnish a *quid pro quo*. The greatest benefits, we are inclined to think, will be gained by a proper attention to the discipline of negroes, and the employment of all those means calculated to improve their *morale*. We know not how Homœopathy treats this disorder, but we can conceive of no plan for a consistent globulist to pursue, but faithfully to administer pillules of the pathogenetic substance. "*Similia similibus curantur!*"

In one of the early numbers of this Journal, an elaborate article on the subject of Cachexia Africana will be found, from the pen of the late Prof. Carpenter, of the University of Louisiana. It is an able exposition of the subject, and will amply repay perusal.

Of the acute diseases to which negroes, as a race, are liable, perhaps the most important is *Pneumonia*. The whole class of inflammatory pulmonary affections is more common among them than among the whites, and vastly more fatal. More especially is this greater mortality to be alleged of Pneumonia. So that of late years it has gained for itself the title of the "opprobrium medicorum." There is nothing for which we hear such frequent calls upon medical men to settle upon some definite and intelligent mode of practice. The contradictory sen-

timents of the profession in regard to it are not confined to this country alone. In foreign journals we notice the same diversity of opinion. While some are strongly advocating an expectant treatment, others are as strenuously contending for a course of active depletion and free medication, and what is perhaps more remarkable, each party will bring abundant statistical proof to support their favorite theory and practice. We can only infer from this, that the combatants have examined this subject from different points of view. Like the fabulous shield, it may possibly have more than one aspect. We doubt the ability, and therefore we question the propriety of any one undertaking to determine and dictate through the pages of a journal, whether or not blood-letting is required in the treatment of Pneumonia. Such a decision is too general and savors of dogmatism. We subscribe to no such unconditional verdict. There are modifying influences to be first taken into the account. What is the type of the disease? Is it sthenic or asthenic? bilious or typhoid? simple or complicated? These different types certainly demand a varied treatment. Again, has the stage of the disease nothing to do with our decision? We fancy a general blood-letting in the primary stage of engorgement is a very different thing from active depletion in the later stages, when hepatization exists. And to return from a digression, does not the race with us suggest some modification in the treatment. As a rule, the negro will not bear depletion so well as the white man, whereas counter-irritations seems to be peculiarly applicable to them. The blister in inflammatory, like *firing* in neuralgic affections, is more than ordinarily efficacious when used with them. Nevertheless, general depletion is often beneficial in the treatment of the Pneumonia of negroes. In a majority of cases that have come under our care, we have used the lancet, and without any after occasion for regret, although we were fully advised at the time, that an unfavorable event would be attributed to its use. There is a prejudice existing outside of the profession against the use of the lancet in Pneumonia, and it exists very much to the embarrassment of the practitioner. Pneumonia is frequently fatal in both races, and when general blood-letting has been a part of the treatment, the physician may expect to find the responsibility fixed upon the point of his lancet. This erroneous impression in regard to general depletion, has doubtless been produced by the disputings of the profession on the same question, and the bitter fruits of these wranglings is thus commended to their own acceptance.

The type of Pneumonia most dreaded among the negroes is the *typhoid*, and the epidemic form it so frequently assumes among them, has

made it perhaps the most formidable disease we have to contend with. It is now a trite remark, that our winter diseases are more unmanageable than the class of summer fevers. To discuss the pathology and treatment of this disease, would extend this article beyond its proper limits; it is a subject, however, which demands investigation, and it becomes those who are interested to record their experience and let all have the benefit of their observations. The subjects of Pneumonia are chiefly adults, and perhaps the mortality is greater among them than from any other disease which afflicts our slave population. Unlike some of the other affections which we have adverted to, it is a disease that medicine is expected to control, and which there is no reason *a priori* to suppose would be the theme of such diverse sentiments among medical men.

Dysentery is sometimes seen to take on a peculiar form among negroes. We know not how extensively this form of disease may have been noticed among them, or whether it should not be considered a modification of the disease induced by a hot climate. We refer to a form of Dysentery marked by the peculiar urgency of the symptoms, and by the rapidity with which it runs its course. Its character might perhaps be best expressed by placing it midway between the ordinary form of dysentery and cholera, as it partakes of the nature of both. The characteristic symptoms of hemorrhage, tormina, and tenesmus, are always present and serve to identify the disease, generally running its course in three or four days. The discharges are more copious, and unlike the disease as described in the books, the transition seems to be immediate from the stage of inflammation to that of mortification and sloughing, without the ulcerative process that ordinarily intervenes The treatment must of course be prompt and energetic; and we are inclined to believe that the early use of the lancet is an essential means in the endeavor to control it.

There are other diseases that we find prevalent among the negro population, and which might be styled in a measure peculiar to them. In fact, there are few, perhaps, that would not require a modified form of treatment., were we better acquainted with the physiology of the race—or at least with their pathology; for we notice some writers are willing to admit their different pathology, who deny a distinct physiology; a distinction, we confess, we are at a loss to comprehend, seeing that pathology is itself but a morbid physiology—"the physiology of the sick room." But apart from this question, the circumstances, occupations, and habits of life, are sufficient to impress a distinctive character on diseases to which negroes are liable.

There is a large class of complaints peculiar to females, to which many of that race are subject—various functional derangements of the generative system, and mechanical displacements still more common. The diseases of the integuments, we may observe, too, require other means of diagnosis than those laid down in the books, as do also many of the exanthemata.

Rubeola, we submit, is simply a misnomer. *Scarlet Fever* is a term which loses much of its significance when applied to them. When called upon to establish the diagnosis of Typhoid Fever, the student of Louis and Bartlett will derive but little aid from the pathognomonic *rose colored eruption*, on which so much stress is laid by those authors. All this may be called quibbling, and deemed of no importance, nor do we attach any weight to it, except that it may represent how little discrimination is made in the description of other symptoms of disease less palpable to the senses. There are many physicians, the bulk of whose practice lies among the slave population, and whose interest has certainly not been consulted by the authorities in medical literature; and our object in making these few desultory remarks on some of the prominent diseases among negroes, has been, mainly, to call attention to the wants of the profession, and of the public also, in this matter. Certain we are that they have not heretofore been recognized. So far as we have noticed, but one writer has made this the subject of discussion. Such indifference to local grievances, is not characteristic of medicine alone in these Southern States; but with this alone we have to do at present, and we demand that the subject receive the consideration its importance calls for. Upon the Medical Schools and Medical Colleges of the South this duty primarily devolves. True it is, that our Medical Journals are doing good service, and are conducted in a spirit worthy of the position they occupy; but will they assert that due prominence has been given to the particular department of medicine for which we plead? To our Medical Schools also we look for a reform in this matter. May it not be because our Southern Schools are formed and conducted on Northern principles, that so many disregard the inducements held out by them, and go elsewhere for education? We regret, when young men seeking the profession, solicit our advice in the choice of a school, that we cannot present the claims of our own institutions in a more attractive light. That they do possess superior advantages, we are free to admit; but this superiority does not consist in any special adaptation their instructions have to the wants of the rural districts of the country, in which a large majority of their students must naturally find their sphere of action. We believe that they would con-

sult their own interest, by making a provision for these wants; and that a course of lectures devoted to this specific purpose, would rapidly inure to their own benefit. Such a thing we hold is practicable. Let the diseases of negroes be united with the class of diseases incident to warm climates, and they will together afford a field of sufficient extent for a distinct professorship, and second to none in point of practical importance. We predict that the institution that shall originate such a course, will find that the effort to thus signalize itself as a *Southern* Medical School, will be soon recognized and appreciated by those whom it may concern, and that its halls will be immediately crowded by a host of eager students from all parts of the slave-holding territory.

But it is not as a measure of policy that we suggest this course. As such, it is simply none of our business. It is rather the utterance of a want felt throughout the length and breadth of the land; and the duty in regard to it is enjoined upon us with higher and more urgent claims. We have a population of three millions of the African race, placed in a position which gives them peculiar claims upon the race which holds them in servitude. They are, too, we may add, the most useful class of operatives now on the face of the earth; and this subject is invested with still more interest, when we consider how intimate the commercial and general prosperity of the country is connected with the physical well-being of these slaves. It is not only a subject for the lover of science to investigate; it is also a question of vital import in political economy. The magnitude of the subject can be reckoned by dollars and cents. For illustration, let any one compute, if he can, the increased value of labor to the South, by the use of cinchona, and the discovery of its alkaloid principles; and the effect it has had to promote a general prosperity. The influence of medicine, in this respect, is not generally appreciated, but it has a position and weighty influence, which is susceptible of proof. We therefore assert that the hygeine and medical treatment of negroes are subjects of the utmost importance, and demand a still more specific investigation than they have yet received at the hands of the medical profession.

To our Medical Schools we look for help in this matter. Our own experience has taught us how little reference the ordinary course of preparation has to the course of practice to which most students are destined. We remember how we paced the typhus-crowded wards of a hospital, in the daily rounds of clinical instruction. Fortunate is he whose mind alone is contaminated in the study of these metropolitan diseases. It may perhaps be worthy of remark, that we have not seen a case of typhus fever since, and possibly we never may; but we have

been constantly witnessing a class of diseases, which are as effectually ignored by the medical schools and text-books of the day, as though the African race had not its existence in our midst. We import the productions of a prolific English press, and by the very same ship they send us an accompaniment of diseases to illustrate their views and substantiate their theories. The North furnishes our students with their "horn-books of medicine," and along with them they send their pulmonary invalids, that they may learn to practice with stethoscope, and by its use verify their skill in diagnosis. From both sources, journals come to us filled with learned essays upon urinary diseases, and the latest improvements in that department of surgery. But typhus and phthisis, and a large proportion of these urinary diseases, are but the exceptional cases with us, and we read of them rather as matters of pathological interest, and curiosities in science, than for any practical bearing they may have on our own affairs. Meanwhile, we look in vain for any corresponding aid in the treatment of diseases incident to our own climate and population—particularly of that part of the population, whose labor is the source of so many benefits to the community at large—of those, whose labor not only freights our ships, stocks our warehouses, and rears our great commercial cities, but which also builds our colleges, supports our hospitals, and endows with princely munificence our budding universities—which supplies us with so many of the comforts and luxuries of life, and which even procures for us the ability to regale with an entertaining foreign literature, and the means whereby we appropriate to our own use the productions of other lands. In all, therefore, we repeat, that relates to the welfare of the negro race, we have a common and abiding interest, and in regard to it, the medical profession has its appropriate duty to perform. Let us beware, lest we prove recreant and fail to meet the claims that are upon us. These are emphatically the days of reform. We hear the cry, loud and oft-repeated, for independence, self-protection and Southern interests. In the science of medicine, there is no choice between a foreign supply and home production. Our medical literature cannot be *manufactured* for us abroad. There is a necessity for combined action among ourselves, and for more strenuous efforts in our own behalf. The appearance of a new work on "Southern Practice," just announced by the press, will be waited for with more than ordinary interest. We hail the "Lone Star" as the harbinger of better things. It is optional with us either to produce for ourselves a literature, or remain, as heretofore, destitute.

Whether such a medical literature shall be supplied, suited to the wants of the South, and self-sustaining, will depend on the fidelity of her own sons.

VII.—WOUND OF ABDOMEN—FOLLOWED BY HERNIA OF STOMACH AND STRANGULATION—CONTENTS OF THIS ORGAN DISCHARGED BY PUNCTURE -REDUCTION AND CURE.

BY A. EWING, M. D., OF LA.

The following case, which occurred in my practice last spring, is submitted without comment, with the belief that it may prove interesting to the readers of the Journal, as well on account of its rarity as the success which attended the treatment.

I was called in the month of April, 1852, to see a negro man,—the property of John E. Hammons, Esq., of Carroll county, Miss.,—who, in a rencounter with the owner, received a penetrating wound between the ninth and tenth ribs, about one third their length from before. The injury had been inflicted with a common pocket-knife, the blade of which measured about four inches ; and upon examination, the base of the left lung was found to have been slightly wounded, which was manifested by the escape of air at each respiratory act—the knife penetrating the diaphragm, its point wounded the omentum ; the stomach, however, escaped.

The wound was inflicted at the beginning of the affray, and the subsequent struggling (for he continued to resist afterwards) caused the stomach to protrude through the wound, which was about two inches long and parallel with the ribs. The tumor formed by the protruding stomach was so large, that it could with difficulty be grasped with both hands, and was filled with an undigested breakfast ; the accident having occurred about an hour subsequent to that meal.

Upon my arrival, I attempted the reduction of the protruding viscus ; but soon found that it could not be accomplished by the use of any justifiable amount of force. In the meantime vomiting supervened, which increased the difficulty still more, by forcing into the tumor an additional amount of its undigested contents.

Having no instruments with me, I was under the necessity of sending five miles for them, which necessarily caused a delay of three hours ; by which time there was a strong tendency to strangulation ; the vessels of the stomach were turgid and dark, from the obstacle to the free escape of venous blood. I proceeded to enlarge the external wound to the extent of about three inches, which, however, did not enable me to effect reduction, but seemed to relieve, to some extent, the strangulation, by allowing the vessels to empty themselves. The external wound now measured near five inches, yet owing to the unyielding nature of its boundaries above and below, I was prevented from replacing the portion of the stomach protruding ; and it was deemed advisable, indeed

imperatively necessary, to empty it of its contents. Accordingly, in the presence of Doctors Hart and Clarke, an incision was made into the organ sufficiently large (say an inch and a half) to turn out the contents, which, it is needless to state, were identical with those ejected by vomiting. This opening was made about two inches from the cardiac orifice.

After thus relieving the organ, the necessary care being used to prevent any escape into the peritoneal sac, the wound was then closed by four tightly drawn stitches of the interrupted suture; accurate approximation of the edge of the wound being thereby effected; the organ then being restored, the external wound was likewise closed by a half dozen stitches of the same suture. He was then ordered an enema, and left, to be seen again on the following day; when he was found quiet, and without any constitutional disturbance. All solid food was interdicted, and the bowels ordered to be kept open by enemata, and after the third day there was a gradual but very perceptible improvement, which continued to recovery, in three weeks.

Bayou Sara, March 19, 1853.

VIII.—ON THE USE OF SULPHATE OF QUININE IN TYPHOID FEVER.

BY R. L. SCRUGGS, M. D., OF LA.

[Extract of a letter addressed to E. D. Fenner, M. D., of New Orleans.*]

I have read carefully your article on "the abortive treatment of fevers by the Sulphate of Quinine—being a reply to the remarks of Dr. Boling on the use of Quinine in continued fever;" and while I greatly admire the tact, skill and talent displayed by you in the argument, I am compelled to state, that you have totally failed to convince my judgment of the correctness of your position in this most important matter. In your letter to me, you request me not to criticise your plan without first giving it a trial; but I fear I shall never have the boldness to do this, since it would appear from your writings, that you consider a larger quantity of Quinine necessary to arrest a mild case of typhoid fever,

* This letter was written in December last, in reply to one from Dr. Fenner, in which he requested me to give him my opinion of his views and arguments upon this subject.

than would be required to break up the chain of morbid catenations in cases of pernicious intermittents or remittents. Let me assure you, however, that long before I ever saw the idea suggested by you, I entertained similar views, and laughed at the idea of permitting any fever to run its course without an attempt to arrest it with Quinine. This opinion was based upon "a long and satisfactory use of it," (Quinine) in the treatment of the worst forms of malarial fevers, and therefore "it is not probable that the remedy failed to have a fair trial" at my hands. For some time before I ever saw a case of typhoid fever, I was in the habit, almost daily, of treating mild cases of remittent fever, and frequently had to grapple with congestive and *typhoid* remittents of the most malignant character; and this I had come to do with an almost entire confidence in the antidotal virtues of the Sulphate of Quinine. Great, therefore, was my surprise and consternation, when I found I had mild cases of fever, that not only would not yield to the Quinine treatment, but became decidedly worse at every repetition of the dose; and this, too, whether the quantity given was large or small —whether given alone or in combination with other articles, and in spite of "all such adjuvant measures with which I was acquainted, calculated to secure its beneficial influence."

I should, in all probability, have destroyed my first case of typhoid fever, had I not fortunately consulted with an old practitioner, who had treated the disease in other countries, and become familiar with it. He told me to stop the Quinine, and not attempt to cure the fever, but to ward off the tendency to death by mild and appropriate means—that the fever would run its course in spite of all treatment, and that any attempt to cut it short by Quinine would, according to his experience, be much more certain to cut short the thread of life. But, said I to him, our fevers here run their course rapidly, and have a strong tendency to terminate speedily in death, unless arrested by the most prompt and energetic treatment. Said he, this is probably a different kind of fever from any that you have heretofore treated. I replied, that I thought I had such cases almost daily. To this he answered, your fevers have been heretofore doubtless of a malarious origin, as is the case in almost all newly settled countries; but as your country becomes older, I have no doubt but that you will frequently be troubled with a "slow fever," which has received a variety of names, and has probably prevailed, more or less, in all inhabited countries since the days of Hippocrates, and the misfortune is that they so nearly resemble the fevers which usually precede them, that it is a matter of great difficulty, with the inexperienced, to diagnosticate between them. But should you be

unable to determine in any other way, there is one way that I think is infallible, which is this—if you have to deal with a miasmatic fever, of whatever type soever, your Quinine will always answer your expectations; whereas if it be a typhoid (or, as it is sometimes improperly called, *typhus*) fever, so far from the Quinine benefitting the case, it will invariably make it worse. Of course, I do not expect you to be forced to this alternative after a few opportunities of observation and a little attention to the subject; but I merely mention this as a dernier resort, in those cases where certainty in diagnosis is impracticable, either from the intrinsic difficulties in the case, or from want of sufficient experience on your part.

The management of more than two hundred cases of this fever since, extending over a period of eight years, has perfectly satisfied me with the general correctness of the views of this sage disciple of Æsculapius, and I shall ever feel indebted to him for the lesson then taught me. It was but a short period after this, that deaths occurred in every direction around us, under the management of physicians who had previously been successful in the treatment of our endemic fevers; and I was called to several large plantations, where deaths had occurred in quick succession, treated in the ordinary manner with large doses of Quinine, Calomel and Opium. I immediately changed the whole plan of treatment—prohibiting the use of Quinine altogether; much to the astonishment of gentlemen who had come to think, from long experience, that it was madness to attempt the cure of a bad case of fever without the use of this great febrifuge; but I had the satisfaction of seeing the worst cases yield handsomely to the treatment instituted, and thus demonstrated to their entire satisfaction that the disease could be cured, or at least conducted to a favorable termination, without the use of any anti-periodic agent whatever.

I am thoroughly convinced, from my own observations and a good deal of reading, that it does not belong to the class of miasmatic fevers; and I am equally well convinced that it is not typhus. I object to the term continued fever as applied to this dlisease, because other fevers are equally continued; and indeed I am not altogether satisfied with the term fever; for the reason, that in a few cases, at least, what has been assumed as an essential character of fever, to wit, frequency of pulse, is altogether wanting. These latter cases certainly are the true typhoid affection; first, because they have all the other symptoms characteristic of the disease; and secondly, may, by inappropriate treat-

ment, be converted into cases of the greatest severity, which they are not liable to become if managed gently and appropriately.

Again, I am satisfied that some of the most distinguished teachers of England and Ireland have failed to make the proper distinction between typhoid and typhus. For instance, Prof. Graves, in his clinical lectures, calls the attention of his class to the fact, that all the fever cases brought from the *country* to the Dublin hospitals, have tympanitis, gurgling, frequent discharges from the bowels, etc., and this he attributes to ignorance on the part of country physicians, who have had the treatment of these cases at the beginning.

Would it not have been more philosophic in the learned Professor, seeing that these symptoms were invariably present in the country cases, to have concluded that those cases which originated in the open country were different in their nature from those produced by the idio-miasmata of the jails, hospitals, and crowded and filthy apartments of the city of Dublin, than to have accounted for the difference of symptoms by supposing that the physicians were ignorant of the proper treatment? the country physicians of Ireland being, I presume, as well instructed generally as country physicians elsewhere; and this view of the subject is confirmed by the observations of many of the most enlightened men of our profession, both in Europe and in this country.

As for the treatment best adapted to this disease, I have only to say, that the plan adopted by me in Tennessee, and pursued in this State for the past three years, has been so entirely successful, that I have had but little occasion to alter or modify it. If I have made any alteration at all, it consists in giving less medicine, making a little freer use of ice, and relying more upon the recuperative energies of nature. Additional experience has confirmed the high opinion I formerly entertained of the peculiar virtues of the oil of turpentine in the ulcerative stage of the glands of Peyer, and induced me to reject, almost entirely, every other stimulant. I use opiates, but never in the beginning, nor for many days, and then with the greatest possible caution, having had repeated opportunities of witnessing their ill effects upon the brain in this fever.

Brandy and wine I very rarely use at all, although I have sometimes resorted to them with benefit in the latter stages of severe cases, along with beef tea, animal jellies, infusion of bark, etc.

Dr. Dundas' plan has been recently tried by several prominent physicians of England and Scotland, and you know the result. In no instance did the Quinine benefit the patient, and in several it was produc-

tive of very alarming effects. My experience is, that Quinine is never productive of good in these cases, will *always* produce distressing head symptoms, will frequently convert a mild into a severe or dangerous case, and sometimes (particularly when given in large quantities) cause death.

I was not a little surprised to see how lightly you regard a knowledge of the intestinal lesions peculiar to this disease, as manifested in the following sentence in your review of Prof. Austin Flint's Clinical Reports: "Now, with due deference to this respected author, we must contend that this is a matter of *no* importance whatever. What do we care for the *characteristic anatomical lesion of typhoid fever*, or any other disease, if a knowledge of it suggests nothing beneficial either in its *prevention or cure.*"

But, my dear sir, let me ask, does not a *knowledge* of the characteristic anatomical lesions in disease *always* suggest, to the intelligent physician, something valuable? This is certainly the doctrine of the schools, and I should be exceedingly sorry to be convinced, at this late day, that it was erroneous. Even when, by a knowledge of the character and extent of the lesions, we are enabled to pronounce positively that the case is hopeless, still this knowledge is frequently valuable, both to physician and patient; for it prevents the one from making an incorrect prognosis, causes him to study the euthanasia, as in duty bound in all such unfortunate circumstances; and enables the other to make preparation for the fatal event.

But this is not all; I am well satisfied, from my own observations, that disease of these glands commences with the fever, if it doos not precede it. I am not prepared to assert that it is the sole cause of the fever; other causes may, and probably do act along with it; but of one thing I am very positive, to wit, that appropriate treatment addressed specially to the diseased glands tends powerfully to meliorate the condition of the patient, by lessening the virulence of the fever; and I believe also, frequently shortens its duration. I helieve with Professor Wood, that "the intestinal affection is as characteristic of this disease as the eruption is of small-pox," and it is not unreasonable to conclude that this inflammation of the glands may, under favorable circumstances and proper treatment, terminate in resolution. Nor does the fact that a few cases die suddenly and unexpectedly, in my opinion, militate against the theory, that the severity of the symptoms and gravity of the case is in proportion to the extent and severity of the intestinal lesions, for this may be accounted for in the following manner. A person who has tubercular or other disease of the mesenteric glands is

taken with typhoid fever, one of these diseased mesenteric glands is in contact with the bowel, and pressing injuriously against it, directly opposite one of the inflamed glands of Peyer; this being the case, we can very readily understand how the two causes, acting together, might easily produce perforation at that point, without there being any symptoms previously, to indicate the danger of the patient. I lost a strumous patient in 1851, who, after convalescence had commenced, was taken suddenly with symptoms of perforation of the bowel, and died in a few hours; and whether right or wrong, this was my explanation of the matter.

The word "typhoid" seems to be a great stumbling-block in the way of some physicians, it being sometimes used as a generic term to denote a class of diseases sui generis; and at other times adjectively, to express that condition of the system which so frequently supervenes in protracted cases of acute disease. This is certainly calculated to produce some degree of confusion in the minds of medical students; but it does appear to me that it ought not, with experienced and reading physicians, particularly when it is recollected that this explanation is made in every systematic treatise on the subject.

This *typhoid condition* of badly treated and protracted cases of bilious remittent fever has undoubtedly often been mistaken for the disease in question, and that too by physicians of considerable reputation. This was evidently the case, to my mind, in the instances related by your distinguished friend, Dr. Fearn, as having occurred in North Alabama in 1832. I have seen many such myself, and think that I am able, generally, to distinguish between them and true typhoid fever. I was called in consultation to just such a case not long since, and unhesitatingly advised Quin. grs. x, Acet. Morph. gr. $\frac{1}{3}$, Ipecac. gr. $\frac{1}{3}$. This was given, and repeated pro re nata, and the patient had no return of fever and rapidly recovered.

I never give more than twenty grains of Quinine at a dose in any fever; and more generally than otherwise, five grains is the dose prescribed by me—to be repeated every hour or every two hours until 25 to 40 or 50 grains are taken. I never give more than this, because experience has proven to *my* satisfaction that this quantity is amply sufficient, and both reason and experience teach me that more than enough is likely to do harm, cannot possibly do good, and is, furthermore, a foolish waste of a costly medicine.

You will perceive, from what I have said, that the diagnosis between t ese two diseases is, in my judgment, of the last importance; as a

failure to give the necessary quantity of Quinine at the proper time, in a severe case of miasmatic fever, would be to permit the patient to die for the want of the appropriate remedy; whereas the administration of it in a case of genuine typhoid fever, would be directly to bring about the disastrous result, by the administration of a poison in that disease.

Pardon me for entertaining and expressing the belief, that you place much too high an estimate upon the opinions of a man who, although he may have been a skillful physician in his day, yet, for reasons best known to himself, forsook the honorable profession selected by him in his youth, for the more lucrative, but certainly not more intellectual occupation of a merchant; and who probably has not exercised his mind in the investigation of a case of disease for many years past. I certainly think that such testimony will not, nor ought not, to be relied upon, in opposition to that adduced by such men as Dr. Wm. M. Boling of Alabama, Doctors Gerhard, Wood, Bartlett, and a host of minor worthies, North, South, East and West—men, whose sole aim is to learn to treat disease correctly, and the business of whose lives consists in the study and investigation of the various phenomena produced upon the human body by "the thousand ills that flesh is heir to."

Had your distinguished friend practised the profession of medicine in North Alabama up to the present time, and now given his peculiar views as the result of extended experience, I should think his opinions upon this or any other subject connected with our profession, entitled to the highest respect; but under the circumstances, I consider them of no value whatever.

In conclusion, permit me to venture the prediction, that should you ever have a *fair* opportunity of thoroughly investigating this interesting subject, your opinions will undergo a complete revolution in regard to its causes, pathology, treatment, etc. You had not this opportunity, neither at Jackson, Tennessee, nor Clinton, Mississippi; for you left both places before this disease had made its appearance at either; nor do I think it probable that you will ever have the opportunity presented to you in New Orleans, for the reason that the proportion of typhoid to the other fever cases, is too small in that great paludal city to enable you to judge correctly between them.

IX.—CÆSARIAN OPERATION IN A WELL FORMED PELVIS.

BY B. HARVEY, M. D., MISS.

A. Hester, M. D.

Sir—The following sketch is at your disposal, if it should be thought worthy of a place in your valuable Journal.

In July, 1849, I was requested by Mr. John Morrow to visit his servant Easter, who was about to accomplish the gestation of her eighth child. She had been in labor several hours; pains strong and regular. I made a per vaginam examination, without being able to reach the os uteri. An examination, externally, led to the discovery of an immense *ventral hernia.* The changes wrought upon the tumor during the pains, together with the fact first stated, forbade a doubt as to the nature of the case.

What was to be done? Here was an enormous pear-shaped tumor, with a pedicle so small as to preclude a possibility of delivery per vias naturales.

Determining at once upon the necessity of the knife, but unwilling to take upon myself the responsibility of so grave a measure, I administered a large anodyne, and requested an interview with Dr. Saml. Sample, (a gentleman of high professional standing) who unhesitatingly concurred with me in the propriety and necessity of the Cæsarian operation.

Without detailing the particular steps in the operation, it is sufficient to state, that in the presence, and by the assistance of Doctors Sample, Harrington and Tackett, it was performed in the manner usually recommended, without any thing occurring worthy of special remark.

The fœtus was in a state of asphyxia, but was soon revived. The uterus, when emptied, contracted well. The wound was dressed in the usual way.

The child was taken from home and placed in a negro-quarter, where it died in about eight or ten days, probably from want of proper attention.

The mother died at the end of three weeks, from irritative fever, as I learned from the attending Physicians, Doctors Foster and Harrington.

It may be proper for me to add, that about two years previous to the above history, this woman suffered a rupture of the uterus, and Dr. John Tackett being called, determined upon Gastrotomy, (as affording the only hope for mother or child) which he performed with his usual skill.

The woman's last misfortune was owing, I presume, to the peritoneum failing to unite after the last mentioned operation.

Richland, Holmes Co. Miss., March 23, 1853.

Part Second.

EXCERPTA.

I.—*Contributions to the Pathology of the Heart.*

BY DR. M'DOWELL.

The following observations are derived from an analysis of numerous cases of cardiac disease treated by the writer in hospital practice during the last few years, and which were carefully recorded as they severally came under his observation.

It is not the object of this communication to enter upon the subject of heart disease in general, but rather to direct attention to the records of some cases which present in themselves peculiar features, and to allude to such general matters only, relating to the pathology and diagnosis of cardiac disease, as the writer feels that he is enabled to accomplish by the materials which are at his disposal.

Were the differential diagnosis and pathology of cardiac diseases clearly established, such a communication as the present might be well deemed superfluous, but as our knowledge of this class of diseases is comparatively recent, and as yet imperfect, it seems desirable, as opportunities occur, to advance that knowledge by the results of clinical observation.

Organic diseases of the heart have been considered under two heads, as they engage—

1. Its valvular structure.
2. Its muscular tissue.

This classification has been found no less useful in practice than convenient in the study of morbid appearances. True it is that lesions of both structures often co-exist, or even spring up together; but, on the other hand, in many instances they exist separately, or even where combined they not unfrequently hold to each other the relation of cause and effect.

The valvular diseases of the heart have received by far the largest share of attention, and hence they are by many too exclusively regarded as the sole cause, both of the symptoms and of the fatal result. Yet the morbid changes which affect the muscular tissue of the heart are no less deserving of our attention, as they assist us to explain the laws which regulate the fatality of heart diseases, as well as to understand better the differential characters of these affections.

At the present day it is comparatively easy to distinguish the several valvular diseases from each other. The chief difficulty seems to be in establishing the differential diagnosis in certain cases, between organic and non-organic diseases; and again, in cases of organic disease, in discriminating those in which there is valvular lesion from others, in which, with healthy valves, the muscular tissue and cavities of the heart have undergone morbid changes. To illustrate some of the structural changes which belong to this latter class is the principal object of the present communication.

CASE I.

Mary Byrne, aged 33, was admitted into the Whitworth Hospital under my care, October 12, 1846. She states that she has labored under some of the symptoms of the disease of the heart for the last fifteen months; palpitation was first complained of. Five weeks later she had an attack of hemoptysis, which continued for two days. Six weeks prior to her admission into the hospital, dropsical effusions became developed; her face and ankles first swelled, and subsequently the abdomen. She never at any time labored under rheumatism. On her admission general anasarca and ascites, to a slight extent, were present; extreme distension of the legs by serous effusion rendered her very helpless; while a frequent harassing cough, with scanty expectoration, increased much her sufferings; there was extreme dyspnœa occurring in paroxysms, and amounting to orthopnœa; the face was bloated, and so darkly congested as to be almost livid; the superficial veins of the neck were turgid, whilst the extremities were constantly cold and mottled. The urine was small in quantity and high-colored, specific gravity 1016, not containing albumen. The digestive organs were much deranged.

The chest generally yielded a dull sound, owing to anasarca of its parietes; cardiac region extensively dull; heart's impulse weak, as contrasted with the apparent amount of cardiac enlargement; heart's action extremely irregular; second cardiac sound normal and distinct, whilst the first sound was accompanied or replaced by an evident murmur, heard most loudly over the heart's apex, but lost along the sternum. No frémissement. Radial pulse extremely small, weak and intermittent, 108 in the minute. The signs of universal bronchitis, with pulmonary congestion, were present.

No treatment could be expected to have much influence under such unfavorable circumstances. Diuretics, purgatives and diffusible stimulants were employed with some benefit; subsequently blue pill in minute doses, with digitalis and squills, was prescribed. On the 21st it was reported that much relief had been experienced, but all improvement ceased here, and her most unfavorable symptoms became more developed. With increasing dropsy there was increased dyspnœa, and death was impending from apnœa, when coma suddenly set in, and she died November 4th.

Post-mortem Examination.—The lungs were gorged with blood, but were not structurally altered; the cavity of each pleura contained about eight ounces of straw colored serum; the pericardial cavity about half an ounce only. The heart was greatly enlarged; when washed out it weighed thirteen ounces; the left ventricle was extremely dilated; its walls were not hypertrophied, and therefore bore no proportion to the size of the cavity; dilatation was the predominant change, and hence the size and weight of the heart were not duly proportional, as they must be when hypertrophy predominates. The carneæ columnæ of the mitral valve were considerably enlarged; the mitral valve itself was healthy, except a small cartilaginous nodule, not larger than a grain of small shot, on its anterior flap; the left auriculo-ventricular opening was somewhat dilated, and consequently the normal relation as to size between the

opening and its valve no longer existed; the left auricle was also more capacious than usual; the sigmoid valves of the aorta, the lining membrane of that vessel, and the valves of the right side of the heart, were perfectly healthy. The same changes were found in the right cavities, but in a much slighter degree. The substance of the heart itself was altered in appearance and consistence; its fibres were paler than usual, being of a yellowish brown color, whilst their cohesion was diminished; the muscular tissue was manifestly softened. The liver and kidneys were engorged, but were otherwise healthy.

CASE II.

Isabella St. John, aged 63, admitted into the Whitworth Hospital under my care, December 11, 1847. On admission, in this case as in the preceding one, the symptoms were essentially those which are usually attributed to obstructive disease. In addition to palpitations, distressing dyspnœa, and breathlessness, the usual accompaniment of confirmed cardiac disease, lividity of the face, remarkable turgescence of the jugular veins, and anasarca to an extreme degree, were present, and evidently pointed to an obstructed circulation. The symptoms of cardiac disease had first appeared a year previously, and since then had gradually appeared more developed. Dropsy had been but lately superadded; she had never had rheumatism in any form; hemoptysis had occurred on more than one occasion. The cardiac signs consisted in considerable increase of the natural amount of dullness, a bruit at the apex with the first sound, a faint impulse, and an irregularly acting heart. The radial pulse was equally intermittent with the heart, and extremely weak.

It is unnecessary to follow this case through all its details from day to day. The distressing symptoms which have been enumerated admitted of no benefit from treatment. The dyspnœ increased, whilst the limbs continued to enlarge, until at last they became enormously distended. The circulation then grew more languid, and livid vesicles appeared on the legs as the forerunners of gangrene, when death put a period to her sufferings.

Post-mortem Examination.—The body was of great size from serous infiltration, as also from an excessive deposit of fat. The heart was large, flabby and softened. Its left cavities were very much enlarged, without any increase in the thickness of their walls. The left-auriculo-ventricular opening was remarkably dilated, and allowed five fingers to pass with ease. The venous system was universally gorged with blood, which was yet fluid, but presented no traces of any admixture with oil. The valves, without exception, were perfectly healthy.

In the two cases which have now been detailed, the cardiac lesions were essentially the same. In both there was an enlarged, softened and dilated heart, with ventricles so much expanded, that their cavities had become disproportioned to their propelling power. These changes occurred independently of any valvular disease; for in case I., the small spot of thickening, no larger than a grain of shot, cannot be considered to have interfered with the functions of the mitral valve. The left auriculo-ventricular opening in both instances was dilated, so that although the mitral valve was perfect in point of structure, it was, nevertheless, quite inadequate to guard an orifice, dilated, as in case II., to at least twice its usual dimensions. In both cases, consequently, there was regurgitation through the left auriculo-ventricular opening, of which the bruit heard over the apex of the heart was significant, and a languid systemic, together with an obstructed pulmonary circulation. Hence, in obedience to a well known law, that morbid changes in the heart are propagated in a direction contrary to the circulation, there resulted engorgement of the lungs, enlarge-

ment of the left cavities of the heart, venous obstruction and plethora, and lastly general dropsy. As hepatic obstruction was but a part of the obstruction of the general circulation, we find that ascites occurred subsequently to anasarca, and existed to a comparatively slight degree. The prominent symptoms in these two cases were in all material points the same; they were also almost identical with those which characterize a contracted condition of the left auriculo-ventricular opening.

The following arrangement enables us to compare advantageously the prominent symptoms observed in cases I. and II., with those which denote left auriculo-ventricular contraction:

Contraction of the left auriculo-ventricular opening.	*Passive dilatation of the ventricles; softening of the heart.*
	CASES I. & II.
An irregularly acting heart.	An irregularly acting heart.
An intermittent, feeble, and rapid pulse, not synchronous with the heart's impulse.	An intermittent, feeble and rapid pulse.
Dyspnœa, hemoptysis and pulmonary congestion.	Dyspnœa, hemoptysis and pulmonary congestion.
Jugular pulsation and turgescence.	Jugular turgescence.
Cerebral symptoms.	Death by coma in case I.
General dropsy.	General dropsy.
Jaundice (occasionally).	Jaundice (not observed).

It is to be observed that the want of correspondence between the heart's action and the radial pulse, a symptom so much insisted on by Mr. Adams in contraction of the left auriculo-ventricular opening, did not exist in the cases of dilated ventricles, whilst the strong impulse of the heart in the former affection contrasts remarkably with the feebleness of its action in the latter case.

Were the first mentioned sign (want of synchronism between the impulse of the heart and the radial pulse) an invariable, and therefore a pathognomonic sign of a contracted mitral opening, the elements for establishing a differential diagnosis might be therein found, but it has occurred to the writer to meet with several cases in which this symptom was wholly wanting, and yet mitral contraction was proved to have existed on examination after death.* Probably it

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* A brief abstract is here given of three cases in which the pulse was regular, and synchronous with the heart's impulse, whilst on examination after death, mitral narrowing was proved to have existed.

I. Celia Long, aged 30, a patient of mine in the Whitworth Hospital, died Jan. 28th, 1848. Cardiac disease supervened on rheumatism. Symptoms during life: A very small and rapid but regular pulse; disproportionately strong action of the heart; bronchitis; dropsy.

Autopsy. The left auriculo-ventricular opening was so contracted as to admit the entrance of the little finger only; the mitral valve was opaque and rigid; the left auricle was greatly dilated and hypertrophied; the aortic orifice was likewise contracted.

II. John Casey, aged nineteen. Whitworth Hospital. Died January 25th, 1850. Never had rheumatism. Symptoms during life: Dyspnœa, bronchitis, hemoptysis, pulse small but regular; wild delirium occurred suddenly on the 24th, followed by profuse hemoptysis, which continued for about twenty-four hours, when death occurred.

may be a constant symptom in the advanced stages of the disease, when the narrowing has become so great, that the ventricle sometimes contracts on an almost empty cavity.

The disproportion between the force of the heart's action and that of the radial pulse is more valuable, because it is a more constant indication of contracted mitral orifice. But apart from other symptoms, this cannot be regarded as a diagnostic sign, since it may be present under other and different morbid conditions.

The difficulty of distinguishing between these affections will be further increased when it is considered, that the other symptoms which have been in the table assigned to contraction of the mitral orifice, are not necessarily connected with this condition exclusively. For example, hemoptysis may depend on passive dilatation without softening, or on aortic patency and dilatation. Jugular turgescence indicates engorgement of the right side of the heart; jugular pulsation, regurgitation through the right auriculo-ventricular opening; and these phenomena denote mitral contraction only, inasmuch as that lesion generally produced those changes in the right cavities of the heart on which the symptoms in question depend. Cerebral symptoms have been very generally referred to a contracted condition of the left auriculo-ventricular opening. No doubt apoplectic seizures do often occur in the course of this disease, and not unfrequently prove the immediate cause of the fatal result. But at the same time, cerebral lesions may take place in any morbid condition of the heart that enfeebles the general or systemic circulation. The apopletic death of case I. has already illustrated this point. Neither does jaundice essentially belong to mitral contraction; and besides, contrary to what might *a priori* be expected, jaundice so rarely depends on heart disease, that its occasional development can scarcely be considered of any great weight as an element of diagnosis.

If these remarks have conveyed the impression that the symptoms of passive dilatation with softening of the heart may be readily confounded with those of contraction of the mitral orifice, the signs furnished by auscultation and percussion in these two classes of cases will scarcely clear up the difficulty. These signs are very similar in both classes. In cases I. and II. there was detected by percussion an enlarged heart, whilst by auscultation a bellows murmur was revealed over the region of the apex, systolic as to the time of its occurrence, and single. Similar are the phenomena which are generally met with in practice, or described by authors, as associated with contraction of the left auriculo-ventricular opening.

It is stated by some authorities, that in mitral contraction a double bruit may be heard, one murmur being produced by the obstacle in the way of the blood entering the ventricle, the other by its subsequent regurgitation. The writer has never verified this observation, although he has examined a great many cases with reference to this particular point. It has occurred to him, and not

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Autopsy. Mitral valve rigid from bony deposits, opening contracted, and with the valve representing a bony thimble, terminating inferiorly in a narrow chink, although admitting the point of the finger superiorly; the left ventricle was the only part of the heart which retained its natural appearance; the other cavities were all very much dilated; the walls of the left auricle were immensely thickened. The lungs were gorged with fluid blood.

III. Jane Carroll, aged 16. Whitworth Hospital. September 16th, 1846. Had acute rheumatism one year previously. Symptoms: Anasarca, bronchitis, frequent hemoptysis, livid lips; pulse 120, very small but regular; contraction of the mitral valve was diagnosed. Six months afterwards she died in Dr. Bank's ward, and on an examination at the autopsy, a contracted condition of the mitral opening was found to exist.

unfrequently, to meet with cases in which a double bruit was audible at the apex of the heart; but in all of them he could satisfy himself that one of the murmurs, to say the least, was propagated thither from some adjoining locality.

Whilst the physical signs just enumerated are those which usually indicate mitral contraction, it must be clearly understood that their absence does not necessarily indicate valvular soundness. In many cases of mitral contraction, no abnormal sound whatever indicates the lesion, and the diagnosis must then rest on general symptoms. The presence or absence of bruit does not appear to the writer to depend on the extent to which mitral contraction has advanced, as do the other symptoms. The bruit is chiefly due to regurgitation from the left ventricle into the right auricle. And as contraction of the orifice may occur without any impairment of the functions of the mitral valve, there may be obstruction and no regurgitation. In such cases there will consequently be no bruit. This was observed in another case.*

Mitral narrowing, it would thus appear, may occur under at least two forms. In one, the morbid change affects the orifice chiefly, which is then reduced more or less in size, until it represents a "semilunar fissure," with the concavity turned towards the aorta. In the other, the valve is likewise engaged, and becomes puckered, thickened and shortened, whilst the opening is contracted; and not unfrequently both opening and valve are converted into an appearance like that of a bony thimble, the point projecting into the ventricle, and presenting a small, unyielding aperture, which not only obstructs the entrance of the blood, but allows of its partial regurgitation. But another circumstance may influence the existence or absence of bruit in mitral narrowing, viz., the amount of regurgitation.

In those cases of valvular imperfection, in which a considerable amount of fluid is transmitted with force through an altered opening, the murmur which results is always well developed, as, for example, the diastolic murmur of aortic patency, and the prolonged systolic murmur which accompanies mitral inadequacy. Where contraction of the left auriculo-ventricular opening is established, the tendency of the disease is to diminish the amount of blood entering the left ventricle, and in an equal degree the amount and force of its regurgitation into the left auricle, where the lesion is such as to admit of regurgitation. Now this cause operates more and more, as the narrowing goes on, until finally, when the opening is so much diminished that the ventricle can only get a "precarious supply of food" (Adams) the amount of regurgitation must be extremely small, or perhaps only occasional. In accordance with these views, it is in the advanced stage of mitral contraction that a bruit is most frequently wanting †

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* As this case will not appear in the present paper, the following brief abstract of the morbid appearances is here introduced, in order to preserve the connexion of the subject.

Catherine Leonard, aged 40. Contraction of the left auriculo-veutricular opening. Admitted November 5th, 1851.

Post-mortem examination, November 21st. Heart much enlarged, the right cavities greatly increased in size; in the left chambers hypertrophy predominated; the left auriculo-ventricular opening was considerably diminished in size; but the leaves of the mitral valve were unaltered, and consequently quite capable of performing their functions.

† Mr. O'Ferrall has clearly shown that the progress of mitral contraction may cause the disappearance of an originally well-developed murmur. He explains this occurrence by supposing that the shortened valve becomes again adequate to its task in consequence of progressive contraction.

It would appear, therefore, from the details of these cases, (I. and II.) that passive dilatation of the ventricles of the heart (with which dilatation of the left auriculo-ventricular opening is generally associated) and softening of their muscular walls, will be attended with a group of symptoms and of physical signs which are almost identical with those which usually denote a contracted condition of the left auriculo-ventricular opening.

[*Dublin Quarterly Journal.*

(*To be continued.*)

II.—*On the Hemostatic effects of the Eau Pagliari.*

BY PROF. SEDILLOT.

The formula for the preparation of the styptic water, invented by Signor Pagliari, an apothecary at Rome, and which has attained a high celebrity on the Continent, is thus given by Prof. Sedillot, to whom it was transmitted by the inventor.

Take of benzoin eight ounces; sulphate of alumina and potassa one pound; water ten pounds. Boil together in a glazed earthen vessel for six hours, constantly stirring the resinous mass, and supplying the mass by evaporation by successive additions of hot water, so as not to interrupt the ebullition. Finally filter the liquid, and preserve it in well stopped glass vessels. The portion of benzoin which remains undissolved will be found to have lost its odor and inflammability.

The hemostatic water thus obtained is limpid, resembles champagne in color, has a slightly styptic taste, and a sweetly aromatic odor. It leaves, on evaporation, a transparent deposit, which adheres to the side of the vessel.

The following are the conclusions deduced by M. Sedillot from his experience of this and other styptics:

1. There are fluids which instantaneously coagulate the blood, and convert it into a thick, homogeneous and consistent clot.

2. The eau Pagliari enjoys this remarkable property, and does not exercise any injurious action on the tissues with which it comes in contact.

3. Theory, experience and clinical observation equally concur in demonstrating its efficacy as a styptic.

4. The object of compression, in the application of hemostatic liquids, is to permit the coagulation of the blood, as well as the adhesion of the clot to the mouths of the wounded vessels.

5. In all cases in which recourse cannot, without serious inconvenienee, be had to ligature, as well as in those in which the alteration of the blood prevents its coagulation, and renders hemorrhage dangerous, the eau Pagliari may be advantageously employed, and deserves to be classed among the valuable resources of our art.

(*Gazette Medicale de Strasbourg.*)

III.—*The Laws regulating the Bodily Temperature and the frequency of the Pulse.*

BY R. LICHENFELS AND R. FROLICH.

The authors have made a most careful series of experiments on themselves. Each experimenter is twenty-two years of age; the pulse of one of them is normally 71 per minute, that of the other 88; the normal temperature of each is 98.434. During the course of the experiments, they rose shortly before seven o'clock, A. M., took coffee between 7 and 8, had dinner at 2, and evening coffee between 7 and 8.

1. *Daily rate of pulse and temperature.* The influence of the period of the day, *per se*, was very trifling, but both pulse and temperature were greatly affected by food. Before the morning coffee the pulse was lowest; by the end of the first hour after coffee it rose, on an average of many observations, nearly 8 beats per minute; it was slightly less rapid at the end of the next hour; at the end of the third hour it was only 3.3 beats; and at the end of the fourth, 2.77 beats over the original number. The pulse did not sink to the number noted before coffee, till six hours had elapsed. The mid-day meal raised the pulse again, and this occurred apparently sooner after protein than after starchy food, but to a less extent. After the evening coffee, the pulse, which had fallen, again rose, but to a less extent, and its declension occurred much more rapidly.

The temperature of the body was affected in a similar way by food, but the augmentation occurred later than the rising of the pulse; so that the temperature was often at its maximum when the pulse had fallen considerably towards the point from which it had risen. The average amount of increase is about one third of Fahrenheit. The greatest average range of the thermometer in the course of the day, (between 7 o'clock, A. M., and 10 P. M.) was rather less than a degree.

2. *Influence of customary liquid.* The experiments were performed in the afternoon; each lasted one hundred minutes, and the greatest tranquility of body was preserved. After beer, the pulse sank 6 or 7 beats in from 10 to 15 minutes; in 30 minutes it gained its former frequency; much before this time the subjective feelings of slight incipient intoxication were felt. In about two hours the pulse was heightened nearly double as much as it had been depressed. The temperature, after the use of beer, fell about one third of a degree of Fah. After wine, the pulse at first fell in the same way, and then rose greatly; the temperature fell about half a degree of Fah. The same occurred with alcohol, but afterwards the temperature rose about a quarter or half of a degree of Fah. Cold water lessened, at first, the number of the pulse, and lowered the temperature. In about fifteen minutes both returned to their former amount. Coffee, as already said, raised the pulse, but more in the morning than in the evening.

3. *Influence of fasting.* Fasting for from 20 to 21 hours, lowered both pulse and temperature. At the end, the pulse was from 12 to 16 per minute; the temperature as much as 1-8 degree Fah., under the normal. The curious observation (which was likewise made by Davy and Gierse) was noted, that at the period of customary meal times, both the pulse and temperature slightly rose.

4. *Influence of muscular movements.* Various experiments were tried with different kinds of movements:

First. A ten-pound weight was allowed to hang from the arm for five minutes, the body being tranquil; the pulse first fell in frequency, then rose; its

greatest frequency was after the termination of the experiment. When the weight was on the left arm, the rise was nearly double that which occurred when it was on the right arm.

Second. A weight of one pound was held out horizontally; the pulse rose and fell remarkably several times.

Third. A weight of two pounds was rapidly swung round and round with one arm, while the other was placed on a table, that the pulse might be counted. This exercise produced the greatest effect on the pulse, raising it sometimes from 30 to 50 beats.

Fourth. Long-continued moderate exercise, carried on to fatigue, raised the pulse greatly for some time, but never produced the enormous rise noticed in the previous kind (third) of muscular exertion.

5. *Influence of narcotic poisons.* Belladonna and atropine at first diminished the frequency of the pulse (16 to 20 beats) but after a variable time (15 to 117 minutes) the pulse again rose (12 to 30 beats). The smaller doses produced greater primary sinking than the large, but required much longer time to do so; on the contrary, the larger doses produced much greater secondary rising; that is to say, the maximum sinking point is inversely, and the maximum rising point is directly, proportioned to the amount of the drug. It might be said that small doses depress, larger excite, the pulse.

The temperature was diminished in all cases. Opium, especially in small doses, caused the rising of the pulse, but afterwards there was great sinking, and the temperature diminished.

The Cannabis Indica produced many periods of rising and falling; the temperature rose for about four hours, and to as great a degree as 7 or 8 degrees Fah. Chloroform and ether, if not pushed to too deep narcotism, raised both temperature and pulse.

(*British and For. Med. Chirurg. Rev.*)

IV.—*Contributions to the Pathological Physiology of Pneumonia.*

BY DR. G. ZIMMERMANN.

Zimmermann considers the most minute observation of the natural course of acute disease, to be the only way of elucidating the laws of these typical processes. Although he thinks those cases most fit for the purpose in which no remedies are employed, yet he does not at all exclude those in which the treatment is active. As an instance of how to observe, he describes the course of a case of pleuro-pneumonia, treated by repeated venesection, application of blisters, and internal administration of antiphlogistic remedies, in moderate doses. From the first day of the fully established disease, till after the return of convalescence, he has noted twice daily (at 8 A. M., as the time of remission, and between 5 and 6 P. M., as the time of exacerbation) the temperature under the tongue, the frequency and other qualities of the pulse, and the number of inspirations on almost every day, the quantity of urine secreted in twenty-four hours, its specific gravity, and the quantity of lithic and acid contained in it. Of great interest are the critical symptoms, remarked on the third and then again on the ninth day, after which we observe a steady progress to convalescence. The first note on the temperature was taken four hours after an attack of general vehement rigors, which the patient himself considered as the commencement of the disease; it was then as high as 103 deg. 1, which being 4

deg. 14 over the normal warmth of that individual (98 deg. 96) makes Zimmerman inclined to conclude that the disease had commenced before the occurrence of the rigors. Between the evening of the second and the morning of the third day, a decrease from 104 to 99 deg. 86, was observed, coincident with a general abatement of the constitutional symptoms of pyrexia, but on the evening of the third day the temperature was again as high as 105 deg. 80, and the physical examination exhibited the signs of hepatization, which had not been present in the morning. Between the evening of the eighth and the morning of the ninth day, the warmth had decreased from 106 deg. 16 to 99 deg.50; at the same time all the other febrile symptoms disappeared almost completely, after they had reached a very high degree on the two previous days. It is interesting to remark, that although the frequency of the pulse did not exceed the normal average after that period, yet the temperature increased again to 102 degrees 20, and remained so for more than a fortnight longer. The entrance of the change on the ninth day does not appear to Zimmermann as merely accidental, but he looks at this day as a critical one ; and also the coincidence of several alvine evacuations effected by calomel, seems important to him, as he thinks that the crisis may be promoted by our remedies, if their action takes place shortly before or on the beginning of a critical day. Concerning the urine, the quantity secreted in twenty-four hours was between 90.40 and 29.030 grains ; the minimum is noted on the fifth, the maximum on the ninth day ; the average quantity of twenty-four hours before the tenth day was 15.215 grains, with an average specific gravity of 1.0198 ; between the tenth and the fortieth day 16.510 grains, with 1.0208 specific gravity. The quantitative examination for urea was not made before the eighth day, on which 1081 grains were contained in the urine in twenty-four hours ; on the ninth day, only 884 grains ; and a few days later not more than 400 grains, (which is about the average quantity during health— Lehmann, Physiol. Chemistry, volume i. page 167). The quantity of uric acid was almost normal during the commencement of the disease, but after the sixth day it appeared considerably increased, and reached the maximum on the ninth day, when it amounted to 3770 grains in twenty-four hours (which is at least three times more than the average during health—Lehmann, l. c. page 217. Zimmermann considers this increase of the uric acid and its salts, at the period of the critical change, as important for the doctrine of crisis, as he had opportunity to observe the same phenomenon, not only in pneumonia, but likewise in typhoid fever, ague, measles, etc. From three examinations of the blood obtained during the first seven days in this case, and from his previous experience, Zimmermann considers as the most important changes in the inflammatory blood—that it is less coagulable than the blood in health ; that the quantity of fibrine is augmented; that the colored blood globules are diminished in number, and possess an abnormal disposition for the formation of rolls ; that the colorless globules are found in an increased proportion, and show likewise a tendency to join in groups. (*Ibid.*)

V.—*Adulteration of Sulphate of Quinine.*

BY DR. MOLL;

The excessive price of the true cinchona, the calisaya of Bolivia, has led to the substitution of many inferior kinds, chiefly remarkable for their containing large proportions of quinidine. In consequence of their lower price, they have obtained an admission to the quinine manufactories in large quantities, and much

of the sulphate now produced is depreciated by the addition of quinidine. This substance differs from the sulphate of quinine by its greater specific gravity and less flocculent crystalization, and it is much more soluble than it in water and alcohol. The addition of both cinchonine and quinidine may be detected by means of ether; for while cinchonine is almost insoluble in this substance, quinidine is so in a far less degree than is quinine, inasmuch as sixty drops of ether and twenty of ammonia will dissolve ten grains of quinine and only one grain of quinidine. On the addition of these quantities of sulphuric ether and liquor ammonia to ten grains of quinine, with ten drops of dilute sulphuric acid and fifteen of water, all will remain dissolved, unless cinchonine, or more than ten per cent of quinidine be present in the ethereal solution, it will soon crystallize on the surface. If ten per cent of quinidine be present in the ethereal solution, it will soon crystallize on the surface of the ether. Traces of this substance can be yet more certainly discovered, if ether saturated with quinidine be employed, when all that exists in the suspected salt will remain insoluble. If the powder contain cinchonine, or more than ten per cent quinidine, it will remain undissolved at the line of demarcation of the two fluids. If it be quinidine, it is soluble in additional ether, which cinchona is not.

To establish the purity of quinine, we must also assure ourselves of the absence of inorganic substances, by calcination in platina, or by a solution of the salt in alcohol. Sulphate and carbonate of lime, magnesia, etc., remain undissolved, while boracic acid, though soluble, betrays itself by its blue flame on conflagration. The absence of organic substances, as salicine, sugar, starch, stearic acid, is known by the colorless solution which takes place in concentrated sulphuric acid. The presence of ammoniacal salts is revealed by the odor which ensues on the addition of caustic alkali.

(*Revue Med. Chirurg.*)

VI.—*Temporary Albuminuria.*

BY DR. BEGBIE.

Doctor J. W. Begbie alludes to the phenomena of albuminuria in the following diseases:

1. *Scarlatina Simplex.* He confirms a former statement, that about the period of desquamation, albumen can almost always be found; its presence is associated with renal epithelium, but not with the casts of tubes.

3. *Erysipelas.* Usually at resolution, or during convalescence. Its presence is not constant, nor its quantity great.

The albuminuria in these three cases is called desquamative.

4. *Scarlatinal Dropsy.* The albuminuria may or may not be temporary—blood exudation-corpuscles, and casts of tubes, accompany it.

The albuminuria in this case is termed inflammatory.

5. *Pneumonia*, at the period of resolution, in almost all cases.

6. *Typhus* and *Typhus Abdominalis* (typhoid). From a consideration of the period when the albumen is observed in these last named diseases, Dr. Begbie terms it critical albuminuria.

(*Monthly Journal of Medicine.*)

VII.—*Child Poisoned by an over-dose of Laudanum—restored by Galvanism.*

The March number (1853) of the London Lancet contains the report by Dr. Kirk, of a case of poisoning by laudanum, in which galvanism was successfully applied after all other means had failed. When the child, only one month old, was first seen, it had no pulse, hands and feet cold, features shrunk and deadly pale; aroused with difficulty, and soon relapsing into a state of complete stupor; pupils contracted; respiration slow and scarcely perceptible; suspended at intervals.

The child being unable to swallow, Mr. Kirk applied one of the conductors of a galvanic battery over the epigastrium, and taking the other conductor in his right hand, he passed one of the fingers of his left hand into the mouth of the child, between the teeth and gums, as far back towards the fauces as it could be conveniently carried (the battery acting as feebly as possible). In the meantime the breathing became regular, the action of the heart was steady and more vigorous, and all the symptoms of approaching death disappeared. As often as the galvanic influence was withdrawn, all the unfavorable symptoms returned; but they again disappeared, on the renewal of the agent. At the end of about four hours, Mr. K. succeeded completely in restoring the child, when a mild emetic was administered, followed by a dose of oil, and the child rescued from its perilous condition.

[*Condensed—Ed. N. O. Jour.*]

VIII.—*Chlorate of Potash in Croup.*

The following facts, as given by Dr. Sankey, corroborate the views laid down by Dr. Budd in his paper on Croup: A child aged 13 months, with Croup and Bronchitis, was treated with blisters, salines, ipecac, etc., without benefit, when he was put upon the use of *chlorate of potash;* and although the child was much reduced, the circulation languid, the blood not properly oxygenized, yet in a a short time the Croup and Bronchitis disappeared, and the child was restored to its usual good health.

Another child, æt. three years, with Croup, had been treated with leeches, calomel and ipecac, without much benefit; he was put upon the *chlorate of potash,* and soon his breathing became easy, and his countenance lost its anxious and livid hue. It recovered as in the first case. The chlorate of potash is supposed to be in part decomposed, in these cases, and thus a large portion of its oxygen is given to the blood, for the absence of which the child perishes in attacks of Croup.

(*Condensed from Braithwait's Retrospect.*)

IX.—*A Remedy for Indigestion.*

Doctor Spurgin, who has had much experience in the treatment of gastric affections, recommends the following as a speedy and efficacious remedy for indigestion :

℞	Liq. Potassæ		
	Sodii Chloridi, a a	℥ i	
	Sodæ Phosphatis	ʒ iss	
	Aqua Puræ,	℥ iii	M

Of the above fluid we may take one third, either in soups or other nutricious fluids, at our meals. In England, many families have it on their tables for daily consumption ; and even make their tea by first putting two or three tea spoonsfuls into the tea-pot with the tea. Used in this manner, it promotes digestion and obviates the ill effects arising from this distressing complaint.

(*Ibid.*)

X.—*A new Styptic to arrest Hemorrhage.*

A number of well authenticated cases of hemorrhage, in which the following styptic has proved completely successful have been reported in the French journals by C. Sedillozt. A single drop will immediately coagulate a cupping-glass full of blood ; and a large quantity of it will convert blood into a firm and resisting solid. When applied to a bleeding wound, the hemorrhage is arrested almost in an instant, by the creation of a solid clot on the orifices of the bleeding vessels. This styptic may be thus prepared: Take eight ounces of balsam of benzoin, one pound of sulphate of alumina and potassa, and ten pounds of common water, and boil these for six hours in a glazed earthen vessel, care being taken to add *fresh* quantities of *boiling* water to supply the loss in evaporation, and stir constantly. At this time the super-natant liquid is separated from the undissolved benzoin; then filtered and preserved in glass bottles. It is now fit for use. Thus obtained, the liquid is limpid, and resembles in color champaigne ; its taste is styptic, and odor pleasant and aromatic. It may be applied by soaking a piece of lint in the fluid and binding it over the bleeding surface.

(*Abridged from Ranking.—Ed. N. O. Jour.*)

XI.—*Iron associated with Manganese in Diseases of the Blood.*

Repeated experiments by Pétrequin and others prove, that the restorative properties of iron in chlorotic and anæmic conditions of the system, may be greatly enhanced by combining manganese with this article. It is especially, says M. Pétrequin, in *diseases of the blood*, that ferro-manganic compounds are

useful; these combinations act specially on the vascular apparatus—on the formation of the blood, and on the circulating fluid itself. They do not act merely as tonics or as astringents; but they regenerate the blood. Hence the value of this compound in the anæmia following hemorrhage, surgical operations, etc. In the chlorosis attending the age of puberty in females, and the critical period of life, iron, combined with manganese, acts most beneficially, as experience has demonstrated.

In functional affections of the heart, attended with chlorosis and other anæmic conditions of the general system, iron and manganese have been found eminently efficacious. The disordered state of the nervous system, usually attendant on lesions of the circulating fluid, may be radically relieved by the preparation under consideration.

M. Pétrequin gives several formulas for the preparation of these two articles some of which we shall notice for the readers of the New Orleans Medical and Surgical Journal.

Pills of Carbonate of Iron and Manganese. Take of pure crystalized sulphate of iron 75 parts; pure crystallized sulphate of manganese 25 parts; crystallized carbonate of soda 120 parts; honey 60 parts; and water, a sufficient quantity. Mix and make pills; let each contain about three grains; of these from two to four may be given daily.

Syrup of Lactate of Iron and Manganese. Take of lactate of iron and manganese, 4 parts; powdered sugar 16 parts; rub together, and add distilled water 200 parts; dissolve rapidly, and pour into a mattrass over a water bath, containing 384 parts of broken sugar; then filter the solution. Of this syrup, one or two spoonfuls may be taken daily.

As the commercial salts of manganese contain more or less copper, and even arsenic, it has been recommended to calcine the sulphate of manganese two or three times and with great care, to free it from these deleterious metals, before it can be introduced into the system. (*Ibid.—Ed.N. O. Jour.*)

XII.—*Bronchocele cured by Ligature of Superior and Inferior Thyroid Arteries.*

M. Porta, at the General Hospital of Paris, in July, 1850, ligated both the superior and inferior thyroid arteries, for a "circumscribed and rapidly growing goitre of the left side" of the neck, in a young girl between 17 and 18 years of age. The cure was effected, notwithstanding retarding circumstances, by the end of October; when there remained neither tuberosity nor rigidity, and the neck had recovered its natural dimensions. (*Ibid.*)

XIII.—*Collodion in Orchitis.*

M. Dechange has succeeded in dissipating, in a very short time, testitis, by smearing a thick coating of collodion over the scrotum. It acts by compression and excluding atmospheric air—the latter, according to M. M., being a powerfully exciting cause of inflammation. (*Ibid.*)

XIV.—*A new mode of Cauterizing the Larynx.*

We learn from the Lancet, that Dr. Cotton has suggested to the London Medical Society, a new method of applying a solution of nitrate of silver, or any other substance to the laryngeal mucous membrane. From experiments at the Consumption Hospital, Dr. C. was led to adopt a new mode of introducing caustic solutions into the larynx. The little instrument with which this was accomplished, consisted of a pair of forceps, slightly curved, and having a small piece of sponge attached to one of its blades. By depressing and slightly drawing upward the tongue with a spatula, the extremities of the blades could be held over the larynx, and at the proper moment, the contents of the sponge, charged with the caustic solution, should be squeezed into the larynx. Doctor Cotton says he has used it in a number of cases with the happiest effects, and with but slight inconvenience to the patient. Half a drachm of the fluid was sufficient for one sitting.

XV.—*On Laryngisimus and Epilepsia Laryngea and Tracheotomy.*

BY MARSHAL HALL, M. D.

Dr. Hall, after discussing at great length the benefits of this operation for the relief of laryngisimus, says :

I trust it will not again be asserted that tracheotomy has been proposed as a cure for epilepsy. Tracheotomy is, in fact, a cure for no disease. In laryngitis, in which it is used, it averts the immediate danger to life, and affords time and opportunity for remedies. In epilepsy, in which it never before was used, it does more ; it averts the immediate and the remote dangers to life, and intellect and limb ; it renders the attack abortive, reducing it from the graver to a milder form, affording time and opportunity for remedies, and for the gradual subsidence of augmented excitability of the nervous centre, and of the susceptibility to attacks, excited and left by the disease in its unmitigated form.

[*Lancet.*]

XVI.—*Morphia and Chloroform in Puerperal Convulsions.*

BY ANDREW BOLTON, ESQ.

Elizabeth ———, aged twenty-two, unmarried, at the full period of a first pregnancy, healthy, but for some time past in a desponding way, was seized on the 9th of January, at 4 o'clock, A. M., with pain in the head and loss of vision. At 8 A. M. I was summoned in time to witness a severe convulsive paroxysm,

attended with stertor, lividity of countenance, and apparent impending suffocation. Twenty ounces of blood were drawn from the arms, and the cold douche unsparingly used to head and shoulders. In ten minutes she was calm again, the pulse reduced in tone, 100. On examining the os uteri, it was felt high, slightly dilated, and extremely rigid. The mere introduction of digit sufficed to bring on the convulsions, which recurred again and again, with intervals of five or ten minutes, the whole muscular system participating in the spasms. Eleven, A. M. Paroxysms continue, and she is with much difficulty restrained. At the suggestion of my father, two drachms of Sol. Morph. Ph. L. were given, producing an hour's repose. Half past twelve. Dose of morphia repeated, convulsions having recurred with increased violence. Countenance and general surface pale; the extremities cold. As her condition appeared hopeless, should the paroxysms continue, chloroform was administered, on a piece of linen, in half drachm doses, and its full effect kept up for three hours. At two P. M. there was a slight return of convulsion; skin warm and perspiring; the os uteri was found steadily dilating; and from her uneasy movements, it was apparent that the uterine action had begun. Half past three. The membranes were ruptured, and brisk uterine action ensuing, a dead child was expelled, immediately followed by placenta. She gained her senses during the expulsive efforts, but appeared entirely ignorant of her previous condition. Recovery followed without any bad symptoms.

In conclusion, I would remark, that the convulsions were in no measure mitigated by the depletion, which was carried to the utmost, nor was there any yielding of the os uteri until the chloroform was inhaled.

(*London Lancet.*)

XVII.—*On certain important points in the Chemistry and Pathology of the Urine.*

BY DR. HASSALL.

Dr. Hassall publishes a paper in the March number of the London Lancet on the principal tests employed in the detection of sugar in the urine. After referring to preceding articles, in which he gave the results of certain observations and experiments, on the action of the potash and copper tests for sugar in the urine, he continues:

I showed, contrary to what had been previously stated, that potash, when boiled with non-saccharine urine, almost always deepened the color, and hence I inferred that this test cannot be relied upon for the dejection of small quantities of sugar in the urine.

I showed, likewise, that diabetic sugar, in quantities by no means inconsiderable, might be introduced into many urines, and yet not afterwards be detected by the most careful application of the copper test; further, I began the attempt, to trace out, to what causes this very frequent failure was to be attributed.

With this view, I proposed to experiment with all the principal salts and substances proper to the urine, in order to ascertain which of them affected most the action of the test.

I showed that urea, in the quantities in which it is ordinarily present, did not affect the test, but that carbonate of ammonia, the principal part of which, contained in the urine, is derived from the transformation of the urea, exerted an influence over its action by no means inconsiderable, although not in itself suffi-

cient to explain the decisive failure of the test. I therefore first endeavored to determine the conditions which occasioned the transformation of the urea, with the object of ascertaining whether, during the application of the copper test, carbonate of ammonia was really evolved or not, and I found, as the results of numerous experiments—

1st. That the simple act of boiling an aqueous solution of urea is sufficient to determine the gradual dissolution of that substance, and its conversion into carbonate of ammonia; a result at variance with statements made on this subject, particularly with one advanced by Dr. Bence Jones, and which was adverted to in a former article.

2d. That this conversion of urea takes place, after a time, in distilled water, even without the aid of the spirit-lamp.

3d. That the decomposition of urea is effected, either with or without heat, much more rapidly in fluids which are alkaline, and especially in those, the alkalinity of which arises from the presence of lime in any form.

4th. That the conversion of urea is retarded, and sometimes altogether prevented by an acid condition of the the fluid in which it is present, and this is equally the case whether the solution be subjected to the heat of the spirit-lamp or not; the more acid the fluid, the greater its power of resisting the decomposition of the urea.

5th. The animal matter in a state of decomposition exercises a powerful influence over the transformation of urea; and this it does by producing an alkaline condition of the fluid in which the urea is contained, the alkalinity being produced by the carbonate of ammonia generated during putrefaction.

From all this, it appears therefore that carbonate of ammonia is, in some instances, evolved from the urine during the application of Trommer's test; but scarcely, however, to such extent as to occasion of itself the failure of the test, although it no doubt contributes in some degree to that failure.

I next experimented with the remaining salts, either constantly or occasionally present in the urine, and ascertained, as far as possible, which of these most affected the success of the test.

With one fourth of a grain of urate of ammonia dissolved in half a drachm of distilled water, holding one eighth of a grain of sugar in solution, the test failed; with the eighth of a grain of sugar it succeeded imperfectly only; but with the sixteenth it was successful.

The carbonates of lime and magnesia are but seldom, if ever, found in human urine, except as the consequence of decomposition; it was therefore hardly necessary to experiment with these. I may state, however, that on the addition of two drops of a saturated solution of a sulphate of copper to one half drachm of a solution containing carbonate of lime dissolved by excess of carbonic acid, and the thirty-second of a grain of diabetic sugar, the test was found to answer satisfactorily.

With one grain of phosphate of lime to half a drachm of a solution slightly acidified with dilute phosphoric acid, containing one eighth of a grain of sugar, no precipitate formed on the application of the test; with half a grain of the phosphate, a brownish modification of the black oxide appeared; with a quarter of a grain, the precipitate was of a lighter brown; with one eighth, it was of a reddish brown; with one sixteenth, of a very light brown; and it was only with the thirty-second of a grain of phosphate of lime that the precipitate became of a dirty and dull yellow, sufficiently characteristic, however, of the presence of sugar.

In similar quantities of saccharine solutions, of the same strength as in the previous case, containing respectively the eighth, sixteenth, thirty-second and sixty-fourth of a grain of phosphate of magnesia, no precipitate appeared; and with the one hundreth and twenty-eighth of a grain, a cherry red or brownish precipitate was thrown down.

With one grain of phosphate of ammonia the precipitate was of a decided

brown; with half a grain, of a light brown; with one fourth, of a yellowish brown; and with one eighth, the test was successful.

W th one grain of the phosphate of soda, the precipitate was brown; with half a grain, the same; with one fourth, it was of a brick red color; with one eighth, of a light red; and with the one sixteenth, the test was successful.

The conclusions to be deduced from these experiments will be considered hereafter.

The results of the experiments made with the sulphates were as follows:—

In a solution containing two grains of sulphate of potash and one sixteenth of a grain of sugar, the precipitate was dark yellow, and characteristic of the presence of the sugar.

With one grain of sulphate of magnesia and the thirty-second of a grain of sugar, the precipitate was a red or lake color, and the same with twice the quantity of sugar; with one eighth of a grain of sugar, the test succeeded

In experiments made with the oxalates, the following results were obtained:—

In a solution containing the one hundred and twenty-eighth of a grain of oxalate of ammonia, the test succeeded imperfectly only.

With one grain of binoxalate of potash, the precipitate was gray, with half a grain pinkish, and with one fourth, bright yellow.

In a solution with one grain of oxalate of lime dissolved in dilute hydrochloric acid, the red oxide was copiously precipitated.

The chlorides gave the following results:

In a solution containing two grains of chloride of sodium, the test was perfectly successful. It was equally so in a solution of chloride of calcium of the same strength.

The results with the acids were as follows:

The test answered very well in solutions containing one and two grains of tartaric acid to the half drachm of fluid, and the sixteenth and thirty-second of a grain of sugar.

With one grain of citric acid, and one sixteenth of a grain of sugar, the test succeeded fully well; but it failed when the acid was increased to two grains.

With one grain of oxalic acid, and the one sixteenth of sugar, a rich golden yellow precipitate subsided; but with the thirty-second of a grain of sugar the precipitate inclined to green, and could not be distinguished with certainty as a modification of the red oxide.

With five drops of dilute phosphoric acid, the test was likewise completely successful.

Animal matter, mucus, epithelium, and particularly albumen, have been said to interfere greatly with Trommer's test. It succeeded, however, completely, in the ordinary saccharine solution, to which half a drop of white of egg was added.

The quantity of liquor potassa employed in the above experiments, except in the case of the acids, in which half a drachm was used with each trial, was not measured, but was added in the ordinary manner. It would have been better to have employed in each case a definite quantity; the results, however, are sufficiently accurate to serve the purpose for which the experiments were instituted.

We have now to consider whether it appears, from the foregoing experiments, that any of the other constituents of the urine, in addition to the carbonate of ammonia, are ever present in quantity sufficient to occasion the failure of Trommer's test.

The chlorides, sulphates, the acids and albumen, do not require to be further noticed, as they do not appear to affect the test in any sensible degree; there remains then for consideration only the urate of ammonia, the phosphates, and the oxalates.

Urate of ammonia, which is often present in the urine in such large quantity, exerts a very marked effect over the action of the test, which is successful only in solutions which do not contain more than one grain of the urate to the ounce of fluid holding dissolved two grains of sugar.

The phosphates, as appears from the experiments, affect to a considerable extent the successful action of the test, but particularly the earthy phosphates, and especially the phosphate of magnesia. Thus the test will not succeed in solutions containing two grains of sugar and more than two grains of phosphate of ammonia, one grain of phosphate of soda, half a grain of phosphate of lime, and the one eighth of a grain of the phosphate of magnesia, to the ounce.

The oxalates, likewise, affect very greatly the copper test, especially the oxalate of ammonia; but the affinity of the oxalic acid is so great for lime, which is always present in the urine, that oxalate of ammonia is contained in that fluid probably only very rarely, and in ordinary cases, therefore, it has little or nothing to do with the non-success of the test.

It is then evident, that several of the constituents of the urine, even when separated from each other, do affect the success of the copper test; and there is no doubt but that in some cases, acting in combination, they are the cause of its failure.

The same conclusion is proved in another way, viz., by the results of the evaporation of different urines.

Four grains of diabetic sugar were dissolved in two ounces of each of the following urines, which, after being first tested for the sugar, were carefully evaporated to the consistence of syrup; a portion of the residue of each was re-dissolved in distilled water, and again tested; the results before and after evaporation being shown in the following table:

First Urine. Trommer's test, before evaporation, failed; after, acted very imperfectly.

Second Urine. The test, before evaporation, failed; after, succeeded imperfectly.

Third Urine. The test acted imperfectly before, and nearly the same after evaporation.

Fourth Urine. The test failed both before and after evaporation.

Fifth Urine. The same results.

Sixth Urine. Failed before, but succeeded after evaporation.

Seventh Urine. Failed before, but succeeded after evaporation.

Eighth Urine. The test acted very slightly before, but very decidedly after evaporation.

Ninth Urine. Acted very slightly before, but very decidedly after evaporation.

Tenth Urine. Did not act at all before, but very decidedly after the evaporation.

Now the increased, but not at all complete or invariable, success of the test after evaporation, is explained by the partial precipitation of the earthy phosphates and the urate of ammonia, as well as, in some cases, where the urine is not very recent, by the dissipation of the carbonate of ammonia.

But, as we see, the test still very frequently fails; and in what way are these failures to be explained and overcome? They are explained, I believe, sufficiently, in many cases, by the solvent action of the distilled water, which is capable of taking up enough of the constituents of the urine to defeat the operation of the test.

On referring to my notes, I observed that in those cases in which the test

was most successful, the urines were of low specific gravity, and were but slightly acid or even alkaline; while, on the other hand, the urines in which it failed were of high specific gravity, and usually strongly acid.

It therefore occurred to me, that the condition of the urine, as to acidity, was at least one of the causes of the failure of the test. Acting on this idea, I rendered the urine alkaline previous to the addition of the copper, and subsequently added the alkali in very large excess. Since I have adopted this plan, I have but seldom failed to detect a very small quantity of sugar, even when purposely introduced into the urine.

In testing urine therefore for sugar, if acid, as it almost invariably is, when that substance is present, it should be first rendered alkaline, and after the addition of the copper, a large excess of potash should be employed. The quantity of sulphate of copper to be used, is in general about two drops of a saturated solution; but when it is suspected that the amount of sugar present is very small, a much less quantity even must be employed.

When the liquid to be tested is not very acid, does not hold many salts in solution, and when the sugar present is very small in amount—some minute fraction of a grain—a very small quantity of potash and copper, especially the latter, will be required.

The copper test may be employed ino ther ways than by boiling the urine in a test-tube, over the flame of a spirit-lamp, after the addition of the re-agents.

Thus, the urine and potash may be boiled together, and while on the boil, the solution of sulphate of copper may be dropped in, when, if sugar be present, the red oxide will be immediately formed.

Or, the copper and potash having been added to the cold iron in a test-tube, this may be set aside for twelve or twenty-four hours, when the reduction, should it contain sugar, will take place without heat. This I consider to be the very best and simplest method of employing the copper test.

Failing in the first attempts to discover sugar in any urine by means of the copper test, other trials should be made, using the re-agents in different proportions, and in more than one of the ways pointed out.

Observing the precautions indicated, the operator will but seldom fail to discover sugar in urine, when present in even minute quantities, although in some rare instances he will still do so. In such cases another test must be had recourse to—the torulæ test. (*Lancet for March*, 1853.)

XVIII.—*Tracheotomy, and Extraction of a portion of Broken Glass.*

BY MR. J. GRAHAM.

On the 8th October, 1852, Thomas G. G——, aged eight, was brought hastily to the infirmary in a suffocating state, in consequence of a portion of broken glass having got into the windpipe. Sir J. Fife was soon brought, and on applying a stethoscope to the front of the throat, pointed out to the pupils around a distinct whistling sound, most evident below the cricoid cartilage. The boy was put under the influence of chloroform. A transverse fold of integument being taken up and cut through, the veins and muscles were exposed and drawn aside, the mesial line was cut open, and the windpipe penetrated close below the cricoid cartilage. A probe-pointed bistoury was then introduced, by which Sir J. Fife divided downwards to about an inch of the trachea; this was followed by the expulsion of a piece of glass, in a convulsive paroxysm of coughing.

9th. Pulse quiet; breathing easy.

10th. Wound healing; voice restored.

12th. Convalescent. (*Ibid.*)

XIX.—*The Chemist's Dream.*

The following ingenious and singular effusion has been placed in our hands by a chemical friend. We do not vouch that it has never been published before, but it will repay perusal during an idle moment. We are informed that it was actually written by a medical student some years ago in Philadelphia, but of the exact time of writing, or of the name of the author, the deponent saith not. (*Stethoscope.*)

Methought I was exploring the hidden recesses of an extensive cave, whose winding passages had never before echoed to the tread of human foot. With admiration and delight I was gazing at the thousand wonders which the flashing torchlight revealed on every side,at each step of my progress,when a strange sound, as of the hum of many voices, fell upon my ear. What such a sound could mean, in such a place, was more than I could divine. Curiosity led me in the direction whence it came. The buzz of the conversation, cheerful, as it would seem, from the occasional bursts of merriment that were heard, grew more and more distinct, until the dark and narrow passage I had been following suddenly opened upon one of those magnificent rock parlors, of whose grandeur and beauty description can convey but a faint idea. A flood of light illuminated the arching roof, with the vast columns of stalactites sparkling with crystals that supported it, and was reflected with imposing effect from the huge streets of the same material, of the purest white, that hung from the ceiling in graceful but substantial drapery. I stood in one of nature's noblest halls, but not alone.

A strange company had gathered there. Black spirits and white, blue spirits and gray, were before me. A festive occasion had assembled, in joyous mood and holiday attire, the first born of creation—the *Elements* of things.

In dreams, nothing ever surprises us. It seemed perfectly natural to see these fairy forms in that grotto. So, accosting without hesitation the one nearest to me, I apologised for my intrusion, and was about to withdraw. From my new acquaintance, however, I received so cordial a welcome and so earnest an invitation to become a participator in their festivities, that I could not deny myself the pleasure of accepting the hospitality so kindly offered.

I was soon informed that some of the leading characters among the elements had resolved, some weeks previous, upon having a general pic-nic dinner party. Sixty-three family invitations had accordingly been sent out, one to each of the brotherhood, and preparations for the feast made upon a most extensive scale. Sea and land had been ransacked for delicacies, and every thing was put in requisition that could contribute to the splendor of the entertainment or the enjoyment of the occasion.

At the hour I so unexpectedly came upon them, nearly all the guests, with their families, had assembled in the strange drawingroom I have described,waiting the summons to the banquet.

Spacious as the drawing room was, it was nearly filled with these interesting children of nature. And here they were seen, not as in the chemist's laboratory, writhing in the heated crucible, or pent up in glassy prisons, or peering out of gas-holders and Florence flasks, but arrayed in their beauty, each free as air, and acting as impulse prompted. There were those present of every hue, every style of dress, every variety of appearance. The metals, the gases, the salts, the acids, the oxides and the alkalies, all were there.

From the mine, from the shop of the artizan, from the mint, from the depths of ocean even, they had come, and a gayer assemblage, a more animating scene my eyes had never beheld. Many of the ladies of the party were most tastefully attired.

Chlorine wore a beautiful greenish yellow robe, that displayed her queen-like figure to good advantage.

The fair daughters of Chromium particularly attracted my attention, with their gay dresses of the loveliest golden yellow and orange red.

Iodine had just arrived, and was not yet disencumbered of an unpretending outer garment of steel gray that enveloped her person; but the warmth of the apartment soon compelled her to lay this aside, when she appeared arrayed in a vesture of thin gauze of the most splendid violet color imaginable.

Carbonic Acid was there, but not clad in the airy robes in which I expected to see her. The pressure of the iron hand of adversity had been upon her, and now her attire was plain, simply a dress of snowy white, the best which the straitened circumstances to which one was reduced allowed her to assume. Quite a contrast to her was her mother.

Carbon, whom you would have supposed to have been a widow in deep mourning, or a nun who had taken the black veil—so sable were her garments, so gloomy her countenance—had not her earrings of polished jet and a circlet of diamonds that glistened on her brow evinced that she had not altogether renounced the world and its vanities.

The belle of the room appeared to be Nitrous Acid, the graceful daughter of Nitrogen, airy in all her movements, and with dress of deepest crimson, that corresponded well with a lip and cheek rivalling the ruby in redness. Among the lady metals, too, there were many bright faces and resplendent charms; but I must pass on to a description of the gentlemen of the party.

Sulphur wore a suit of modest yellow plush, while Phosphorus quite disconcerted some of the most decorous matrons present, by making his appearance in a pair of flesh-colored tights.

Phosphuretted Hydrogen, or as he is nicknamed "Will-of-the-Wisp," startled me, by flitting by in a robe of living flame, the dress in which the graceless youngster is said to haunt church-yards and marshy places, playing his pranks upon poor benighted travellers.

Gold, the king of metals, was arrayed in truly gorgeous apparel, though it must be confessed there was a glitter and an air of hautiness about him, from which you would turn with pleasure to the mild sweet face of his royal sister, Silver, who leaned upon his arm, a bright-eyed unassuming creature of sterling worth.

Mercury was there, as lively and as versatile as ever, a most restless being, now by the thermometer, noting the subterranean temperature, now by the barometer, predicting a storm in the regions overhead, now arm-in-arm with this metal, then with that, and they all, by the way, save stern old Iron, had hard work to shake him off. A strange character surely was he—a philosopher of uncommon powers of reflection; the veriest busy-body in the world, well versed in the healing art; a practical amalgamist; in short, a complete factotum.

Potassium, though a decidedly brilliant looking fellow, manifested too much levity in his deportment to win respect, and was pronounced by those who knew him best, to be rather soft.

Platinum, in gravity, surpassed all the rest, and in natural brightness was outshone by few.

When Oxygen arrived, and his light, elastic tread was heard, and his clear transparent countenance was seen among them, a murmur of congratulation ran around the drawing-room, and involuntarily all assembled rose to meet him and do him homage. He was a patriarch indeed among them; literally a father to many of the youngest guests. His arrival was a signal of adjournment to the banquetting room, where of right he took his position at the head of the table.

Concerning the apartment we had now entered, I can only say it was grand beyond description. It was lighted up with the brilliancy of noon-day, by an arch of flame intensely dazzling, produced by a curious apparatus which Galvanism, who excels in these matters, had contrived for the occasion out of

some materials which his friends Zinc and Copper had furnished him. Festoons of evergreens and wreaths of roses encircled the alabaster columns, and made the whole look like a hall in fairy land. But I must describe the table and its paraphernalia—the preparation of viands—I mean the baking, boiling, roasting, stewing, and the like, which had been committed to Caloric, who had long experience in that department.

The nobler of the metals had generously lent their costly services of plate, while Carbon united with Iron to furnish the elegant steel cutlery used on the occasion.

Alumina provided the fine set of china that graced the table, and Silex and Potash, without solicitation, sent as their joint contribution, cut glass pitchers and tumblers of superior pattern and transparency. As among the sons of nature there is no craving for artificial excitement, Oxygen and Hydrogen—who, by the way, have done more for the cold water societies than Delavan and Father Mathew—were commissioned to provide the drinkables, and what beverage they furnished may be easily conjectured.

Carbon, with Oxygen and Hydrogen, found most of the vegetables, and Nitrogen, whose assistance as commissary here was indispensable, joined them in procuring the meats under which the table groaned. No taste but would be satisfied with variety, no appetite but would be cloyed with the profusion of good things. Though the liberality of the four that have been mentioned left but little for their associates to contribute, still some individual offerings to the feast deserve to be mentioned.

Thus, the oysters, Carbonate of Lime had sent in shell; the pyramids of ice cream for the dessert were provided by the daughter of Chlorine and Hydrogen, the bride of Sodium, who was out several hours in the snow, engaged in freezing them; and the almonds and peaches came from the conservatory of Hydrocianic Acid, the druggist.

After grace had been said by Affinity, who is a sort of chaplain to the Elements, having officiated at the weddings of all the married ones of the company, a vigorous onset was made upon all the good things before them. At first all were too much engaged for conversation; but the dessert appearing at last, as they cracked their nuts, the jests too were cracked. Song and toast were called for, and wit and innocent hilarity became the order of the day. Even Oxygen, who had presided with such an air of dignity, relaxed from his sternness, and entertained the younger ones at the table with many a tale of his mischievous pranks in the days of old father Chaos, when Time and himself were young. Strange tales they were too, of earthquakes with which Hydrogen and he would now and then frighten the Ichthyosauri and Megatheria of the ancient world, and of conflagrations comical, as of old Vulcan's tongs and anvil, kindling them before his eyes with the very bolt he was forging. This, however, he added, with a sly glance at his old partner, Nitrogen, who sat near, was before marriage had sobered down his spirits and tamed his impetuosity.

I have no space to chronicle more of the freaks of Oxygen's early youth, nor any of the sayings and doings of others of this memorable night's party, else I might relate the marvellous story Nickel had to tell about the manner in which he managed to deceive and wrong the miners of former days, by making them believe that he was the parent of Copper, until at length they concluded that he was an evil spirit, whose sole object was to interrupt their operations. I would tell, too, of the drolleries of Nitrous Oxide, that funniest, queerest, craziest of youngsters, and how Phosphorus made a flaming speech, and Potash a caustic one, and how Mercury proposed as a toast, "the medical profession—to whom we say, use us, but don't abuse us." I must speak, however, of a curious by-scene I chanced to witness. It was a flirtation that Platinum was carrying on with Hydrogen, whom, much to my surprise, I found seated up among the metals, and quite at home among them too. There was quite a

contrast between Platinum, gray, heavy and dull as he was, and the light and buoyant creature by his side, but there soon seemed to be evidence of mutual attraction between them.

So passed the evening; all went on "merry as a marriage bell," with nothing to mar the good humor that prevailed, until, in an evil hour, Sulphuretted Hydrogen, a disagreeable fellow, against whose appearance at the banquet most of the company had protested, entered the apartment with a very offensive air. In an instant the whole family of metals, to whom he is particularly obnoxious, changed color. Lead fairly grew black in the face with indignation; Arsenic and Antimony seemed to be jaundiced with rage; Ammonia, to whom his presence recalled very unpleasant associations, in trying to avoid him, precipitated several metallic oxides on the floor, while Chlorine, with more self-command than the rest, advanced with a firm step to expel the intruder, looking as if she were about to annihilate him on the spot. Well, at this crisis he spied Nitric Acid; and knowing that his destruction was certain if they should come in contact, he at once withdrew, very much to the satisfaction of the whole company.

How the scene might have terminated I know not; for just at that moment a strange sound of awful import, like the trampling of a mighty host, came to my ears. I felt sure it was an earthquake's voice, and that now my fate was sealed. My knees tottered under me—the arching grotto and festive board gradually vanished from under my eyes, which opened upon the class as they were leaving the laboratory of our worthy professor of chemistry—where, it appeared, much to my confusion, I had fallen asleep during the lecture—and

"Dreamed a dream in the midst of my slumbers."

S. R. H.

XX.—*Researches on the Pathology of Rheumatic and non-Rheumatic Pericarditis.*

BY DR. ORMEROD.

Recently before the Royal Medical and Chirurgical Society of London, Dr. Ormerod read a very interesting paper on these affections. He commenced by a reference to the researches of the late Dr. Taylor, who had satisfactorily shown that acute rheumatism was not exclusively the cause of pericarditis, and who had also called attention to the importance of granular disease of the kidney, in reference to this morbid condition. The author desired to limit the use of the word pericarditis to present inflammation of the pericardium, and this analysis referred exclusively to cases of this nature. The means of investigation comprehended complete records of 1410 cases, observed under nearly similar circumstances; that is, in the wards of different hospitals. Of these 1249=88. 59 per cent were not cases of rheumatism; 161=11. 41 per cent were admitted on account of rheumatism, or suffered from it while under observation. Of the whole number 85=6 per cent had recent pericarditis, observed during life, or discovered after death, and they were thus distributed—

24=1.92 per cent occurred among	1249 non-rheumatic cases.
61=37.88 per cent.	161 rheumatic cases.
85=6 per cent.	1410

The mean age of 61 subjects of rheumatic pericarditis was about 21; the

mean age of 24 subjects of non-rheumatic pericarditis was 42; the extremes being 7 and 63 years. As to the different causes of the pericarditis:

Rheumatic—Cases coincided with acute rheumatism	61
Non-rheumatic of local origin—Ensued on inflammation of lungs or pleura	7
Malignant disease of pericardium	2
Old cardiac disease	1
Non-rheumatic of constitutional origin—Coincided with granular disease of the kidnies,	6
Hemorrhage or exhaustion,	4
Scarlatina or erysipelas respectively	2
Inexplicable,	2
	85

The date of the accession of pericarditis was determined in 33 of the rheumatic cases; the mean of these observations gave the 10.5th day of rheumatic attack as that on which the pericardial complication most commonly supervened. The question whether a first or second attack of rheumatism was more likely to be accompanied by pericarditis, was beyond the reach of hospital statistics. This source of information was silent also on the question, whether pericarditis be more likely to occur in severe or in the slighter cases of rheumatic fever. It might, however, be safely inferred, that the severity of the articular and pericardial affections bore no very close relationship to each other. It was certain that the most severe, even fatal pericarditis, might occur where there was but faint evidence of articular affection, and this latter condition might exist in the most aggravated and intense form, without involving the addition of pericarditis to the other sources of distress. The author then entered upon the consideration of the subject of non-rheumatic pericarditis of local origin; and a question of importance here presented itself—What was the influence of pre-existent cardiac or pulmonary affections in inducing inflammation of the pericardium? The question was of equal importance in relation to acute rheumatism. The relation of pulmonary inflammation to pericarditis was thus illustrated: In the 1410 cases, the basis of this inquiry, some form of pulmonary inflammation, that is, pneumonia, pleuritis, or pleuro-pneumonia, was ascertained to exist, either by auscultation or dissection, in 265 cases. Of these—

117 had pneumonia,	of which 19 had recent pericarditis.	
86 had pleurisy,	6	"
62 had pleuro-pneumonia,	8	"
265	33=12.4 per cent.	

In the rheumatic class, pericardial inflammation commonly preceded, yet sometimes, though rarely, followed, pulmonary inflammation. The non-rheumatic class told quite a different story; here pulmonary inflammation had apparently a distinct influence in inducing pericarditis, and this influence was most evident in cases of pleurisy; and clinical observation bore out the conclusion, that the pericarditis was subsequent to, and probably contingent on, the pulmonary inflammation. The author then referred to the comparative fatality of non-rheumatic compared with rheumatic pericarditis, and also to the desirableness of instituting an exact comparison between Bright's disease of the kidney and acute rheumatism, in respect to their tendencies to induce inflammation of the pericardium. In conclusion, the author desired to ascertain how far the results obtained by his present analysis agreed with those of the published cases of Dr. Taylor, who had made the subject of non-rheumatic pericarditis so peculiarly his own; the deductions seemed identical, and one arose from the perusal of those elaborate clinical reports with a conviction, that non-rheumatic pericarditis was more within the province of the anatomist

than of the physician. It was a disease with few or no symptoms, its physical signs recognized more often by a chance discovery than on the suggestions of the disease, and its morbid changes small in amount and apparently inactive; and where opportunity had occurred of watching the disease some time previous to death, it had been apparently without effect on the general symptoms, its presence or absence being determined by the ear alone; and still, in these, its connection with the fatal termination had appeared to be that of a coincidence rather than of a cause.

Dr. Copland felt obliged to the author for the very practical and literary way in which he had brought his paper before the Fellows of the Society. The association of disease, as exemplified in Dr. Ormerod's communication, showed us that in practice, we must not look at cases of disease as always simple, but frequently as complicated as these under discussion. All these were connected with the morbid condition of the blood, and to this we must look as the cause of the articular rheumatism, the pericarditis, the pleuritis, etc. All these were evidences of the blood being in an abnormal condition, from whatever cause it originated. Several organs became affected, and when an important disease existed, it masked the minor one. We saw the same train of phenomena in Bright's disease, in which inflammation of the serous membranes was liable to occur from the non-elimination of morbid matter from the blood, and its consequent circulation through the system. These combinations of disease should be viewed in our routine of practice as the result of the morbid actiou in the system. [*Dublin Medical Press*].

XXI.—*Researches on Hœmatology.*

BY BEQUEREL AND RODIER.

The following are the conclusions of a long series of observations upon morbid changes in the blood, which have been recently communicated to the Academie des Sciences, and reported in the Gazette Medicale de Paris.

1st. In the majority of chronic maladies, and in various other unhealthy conditions, there is some increase or diminution in the normal proportions of the three principal elements of the blood—the globules, the fibrine, and the albumen, and this in a single, double or triple order.

2d. The globules diminish in number in the course of most protracted chronic disorders, and especially in organic affections of the heart, the chronic form of Bright's disease, chlorosis, march-cachexy, hemorrhages of various kinds, excessive blood-lettings, the last stages of tubercular disease and the cancerous diathesis; the globules disappear equally in those who are sunk in the depths of poverty, and exposed to the conjoined evil of bad and insufficient food, and of dark, damp, and ill-ventilated dwellings.

3d. The albumen of the serum of the blood diminishes, among other instances, in Bright's disease, chlorosis, the march-cachexy, advanced heart disease, great symptomatic anæmia, and in the state of ill health induced by poverty and cancer.

4th. The proportion of fibrine is unaffected, or slightly augmented, in acute scorbutis, but diminished in the chronic malady, especially in that symptomatic form which often complicates permanent heart disease.

5th. In all the cases already mentioned the quantity of water contained in the blood is considerably augmented.

6th. The more prominent signs of a diminution in the number of the globules are the following: Discoloration of the skin, palpitation, dyspnœa, bruit

de soufflet at the base of the heart during its first sound, an intermittent bruit de soufflet in the carotids, and a continuous one in the jugulars.

7th. A rapid though slight diminution in the quantity of albumen, is marked by acute dropsy. A more gradual diminution is followed by the same symptom, but in this instance the loss must have been much more considerable than in the former one. Dropsy, in fact, is the characteristic sign of a blood deprived of its natural amount of albumen.

8th. A diminution in the normal proportions of fibrine is followed by hemorrhage of one kind or another—mucous or cutaneous.

9th. In the anæmia which is symptomatic of copious hemorrhage, starvation, or exhausting discharges, the blood is less dense and more watery than natural, the globules are diminished in number, and the albumen and fibrine unaffected, or the former slightly wanting.

10th. In chlorosis, which is an affection distinct from anæmia, the blood may be unchanged. If it is changed, it has fewer globules and more water, and a natural or somewhat augmented proportion of fibrine and albumen.

11th. In acute Bright's disease, the globules and fibrine remain unaltered, and the albumen is wasted. In the chronic affections, the globules as well as the albumen are deficient, and not unfrequently the fibrine also, though to a less extent than the others.

12th. Most of the idiopathic dropsies are due to a want in the normal quantity of the albumen of the blood.

13th. In fatal diseases of the heart, the blood progressively becomes more and more impoverished in its three elements of fibrine, albumen and globules, while at the same time it is much more watery.

14th. In acute scorbutis, the blood presents no appreciable alteration. In the chronic affection, the blood is notably deficient in fibrine, while the globules are, sometimes at least, considerably increased.

15th. These facts should exercise a great influence in practice, as we possess the means of acting upon the element which may be wanting or changed. A tonic plan of treatment will be required when each of the three elements is deficient, combined with quinine, steel, or acids, according as the deficiency may be in the albumen, globules or fibrine; one reason of the indication of acids in the latter case being the presence of free soda in the blood when the fibrine is deficient.

[*Ranking's Half Yearly Abstract.*

Part Third.

REVIEWS AND NOTICES OF NEW WORKS.

I.—*A Discourse on the Life, Character and Services of Daniel Drake, M. D.* Delivered, by request, before the Faculty and Medical Students of the University of Louisville, January 27th, 1853. By S. D. Gross, M. D.

The Topical Uses of Water in Surgery. By Charles A. Pope, of St. Louis, Mo. Presented to the American Medical Association, at its Session of May, 1852.

Lecture introductory to the Second Course in the Medical Department of the University of Nashville. By W. K. Bowling, M. D.

Report of the City Registrar of the Births, Marriages and Deaths in the city of Boston, for the year 1852.

Report of the Pennsylvania Hospital for the Insane, for the year 1852. By Thomas S. Kirkbridge, M. D., Physician to the Institution.

Report of the Obstetric Committee on Anæsthesia in Midwifery, and the Speculum Uteri. By Henry Miller, M. D., of Louisville, Ky.

Dr. Gross has, in a well written discourse, accorded full justice to the character of the late Dr. Drake, as a Physician, a teacher of Medicine, and an author, as well as in the social relations.

Commencing with his early life, the writer has faithfully collated circumstances of interest, and placed them before the public in an agreeable manner; in an eventful life like Dr. Drake's, abundant matter was furnished the essayist for compilation, and Dr. Gross, in tracing

that life from youth to manhood, and from manhood to old age, has given fresh evidence of the graceful style of his writing.

It is to be regretted that many of the works of Dr. Drake are in too unfinished a state for publication; and especially that in which his research and ability were most conspicuous—his work on the Diseases of the Interior valley of North America, as they appear in the varieties of its population—the first volume only having been published in 1850; the remaining part of this work (so far as completed) is promised to be forthcoming under the direction of a competent editor.

The services rendered to his profession by Dr. Drake, are so well known and fully appreciated, that further comment upon the discourse is needless; all due respect and honor have been paid to his memory by Dr. Gross.

In his dissertation upon the Topical uses of Water in Surgery, which, if we mistake not, was promised to the public some time ago, Dr. Pope has considered its applicability as a curative agent at various temperatures and in different states; at the same time avoiding the error of claiming it as a universal panacea, either in the local management of external lesions, or, as a prophylactic against functional or organic derangement.

The general employment of so simple an element as water, that which all can obtain without money and without price, must win its way to public favor and adoption, through vulgar prejudices, frequent doubts and serious misgivings. The Physician who should venture to tell his ignorant patient that nothing but pure water was required to heal his unsightly ulcer,or to allay local inflammation, superficial though it might be, need not be surprised if he have excited cupidity in the mind of his hearer, as to the correctness and utility of his views; nor might the Physician receive any other consideration, from the class of patients referred to, should he, relying upon the styptic effects of cold water, by constringing the vessels and affording mechanical obstruction to bleeding orifices, whether arterial (the smaller ones) venous, or capillary, attempt to restrain the flow of blood by the application of that liquid, in the mode of affusion, irrigation, injection, douche, etc., although in a large proportion of cases, if assiduously and judiciously applied, all further interference might cease.

Amongst the different opinions which have been entertained concerning the therapeutic action of cold water, such as the reduction of caloric, the effect on the nervous extremities, the absorption of the wa-

ter, the diminution of the quantum of blood in the part, the uniformity of its temperature maintaining a new action, etc., Prof. Pope is inclined to think, with manifest propriety, that the diminution of the quantity of blood, and the abstraction of caloric, act the most prominent and important part; for, says he, cold applied to an inflamed part is, in one sense, a kind of bandage. But over the bandage, cold possesses this advantage, that while it compresses (constricts) it also largely depletes the part by its abstraction of caloric. The two, by means of a wetted roller, are often advantageously combined.

Certain experiments, made several years ago by my colleague, Prof. M. L. Linton, satisfactorily show, that when a bandage is applied to several, or all of the extremities at the same time, the pulse becomes *fuller* and *slower*. Subsequent experiments made by Prof. Pope, have been attended with like results.

Cold applications, observes Dr. Pope, are applied not only to the cure of inflammation already established, but far oftener to prevent its accession, when likely to follow previous injuries, and hence cold water is recommended in wounds of various kinds, particularly in amputations where union by the first intention is desired.

In reference to hernia, we employ the words of the writer. In incarcerated and strangulated hernia, cold water not only prevents the expected inflammation, but also greatly assists the taxis by its contractile effects. It is when the protruded bowel is greatly distended by flatus, that its beneficial influence is most marked..... Ice has also cured aneurism.

In traumatic inflammation of the thoracic and abdominal cavities, as contusions, wounds, etc., attended by extravasation of blood, the writer's experience has led him to be decidedly favorable to the application of cold, nor has he witnessed the production of pleurisy, or peritonitis, which, by some surgeons, has been attributed to its use about the trunk.

We have frequently had occasion to employ pounded ice and iced water in uterine hemorrhage, in contused and lacerated wounds, in leucorrhœa, and in varicocele, with the most positive and decided advantage; and in an interesting case of arachnitis which recently came under our observation, where by turns the patient was furious, and then engaged in *busy delirium*, irrigating the head from a height with ice water produced a powerfully sedative effect, frequently inducing sleep.

The report of Dr. Miller is restricted to two subjects, viz., Anæsthesia

in Midwifery, and the use of the Speculum Uteri in the diagnosis and treatment of the diversified diseases of the female genital organs.

Having referred to the different kinds of anæthetics which have been employed, the benefits derived from chloroform, in ordinary and extraordinary labor, are briefly considered, the writer being favorable to its use. And as to the Speculum, as it is frequently the best and only certain mode of forming correct diagnosis of disease in those parts to which it is adapted, the writer has no *morbid sensibility* in speaking of its utility. Can touch (demands Dr. Miller) detect inflammation of the cervix? "This question might be answered by another; could a blind surgeon detect cutaneous inflammation by the touch? The truth is, (and every accoucheur well knows it) none of our senses is more deceptive than the touch, or more frequently leads to mistakes. The only discovery which can be made by it, in the matter under consideration, might be made as well by any other instrument as by the finger, viz., the existence of morbid sensibility in the cervix uteri."

Before closing his report, the writer alludes to the groundlessness upon which Dr. Lee renounces the Speculum, and the reasons that have led him to an opposite opinion.

A full report is given of all that relates to the Pennsylvania Hospital for the Insane, for the past year, by Dr. Kirkbridge, embracing statistics from the period when it was opened in 1841.

From the tables we find, that 2207 patients have been admitted, of whom 1212 were males, and 995 females; the discharges and deaths 1992, the deaths alone 230.

The patients at this institution are required to be engaged in husbandry and mechanical pursuits; museums and reading rooms have also been introduced as a means of improving the condition of the inmates.

Although various contributions have been made during the past year, the excess of expenditures is $3,107 14; the average number of patients 224, and the cost per week of each $4.59.

Dr. Kirkbridge observes, at the conclusion of his report: "The institution closes its twelfth year in a state of high prosperity; its buildings about as extensive as are desirable, nearly every room in all its wards constantly required to accommodate those who resort to it for relief, and its means of adding to the comfort and happiness of its patients, and carrying out a liberal course of treatment, steadily rising in character, and increasing in number and efficacy."

G. T. B.

New Orleans, March 19, 1853.

II.—*Hand-Book of Natural Philosophy and Astronomy.* By DIONYSIUS LARDNER, D. C. L., etc. Illustrated by upwards of 200 engravings. Lea & Blanchard, Philadelphia. 1853.

This is the second of Dr. Lardner's course of publications, for popular use, on Natural Philosophy and Astronomy, and embraces the subjects of Heat, Magnetism, Common Electricity and Voltaic Electricity. These important branches of science are treated in Dr. Lardner's usual felicitous style, omitting, however, all or nearly all of the mathematical demonstrations and details essential to a complete text-book on the natural sciences. This brings the work within the limited scope of the unscientific reader, so far as the bare facts are capable of being brought without demonstration; and it is thus admirably calculated to please and instruct all those who are not particularly curious about the why and the wherefore. There is, however, a little too much of the "royal road" about it to please the amateur of science; though, in this respect it is, perhaps, less objectionable than most of the "Hand-books of Natural Philosophy" of the present day.

The great value of the work lies in its being a faithful "posting up" of all the important facts, in the physical sciences, thus far developed; and this is saying much for it.

Dr. Lardner is a strong advocate of the theory of the immateriality of heat, light, electricity, magnetism and galvanism; and maintains that "all the different forms of physical energy, whether chemical action, light, heat, electricity, magnetism, or visible motion and mechanical power, are convertible into each other." He deems, further, that this is all experimentally proved. He maintains that "there is no such thing as caloric," and that the phenomena of repulsion are not dependent on it, considered as an elastic immateriality. "Heat, he maintains, is only *motion*. "Heat," says he, "consists of motion, excited among the particles of bodies." (Heat, p. 180.)

This appears very much like mistaking the effect for the cause; for notwithstanding all the attempts of Dr. Lardner and others to prove this new theory, we see phenomena about us daily showing that motion, instead of being identical with heat, is manifestly only the *effect* of it, as a potent entity of some kind. If "heat consists of motion excited among the particles of bodies," motion ought always to produce the phenomena of heat; but the motion of the particles of matter undergoing expansion—as those of a gas or air, when the pressure is removed—produces *cold*. If motion is heat, as Dr. Lardner maintains, it ought to be uniform in its effects, like causes producing like effects.

There is a great tendency, among the philosophers of the present age, to spiritualize and immaterialize every thing.* Dr. Lardner has philosophized himself into the firm conviction, that "all the different forms of physical energy, whether chemical action, light, heat, electricity, magnetism, or visible motion and mechanical power," are not matter—not material; they must therefore be immaterialities, or at least spiritualities. The legitimate conclusion then is, that all the phenomena of the visible universe are the results of the incessant play of a host of spiritualities—nothings—or at least immaterialities. This looks very much like nothing producing something—the old *ex nihilo nihil fit* being obsolete.

Professor Airy proved, some years ago, that matter consists entirely of mathematical points; and to this Dr. Lardner's theory seems to be a fitting counterpart. Matter being nothing—as Berkeley had proved long before—it was very natural, in Dr. Lardner, to assume that all the agencies external to matter—which would be a contradiction in terms—were also nothing, or at least not matter. The next step will be to assert that Berkeley, after all, was right, in gravely and elaborately maintaining that the external world was not a reality, but all a delusion—composed, at least, of such materials as Shakspeare's dreams.

We have in our possession a copy of Euclid's Elements, in Greek, with a Latin translation, the preface to which is dated *Lutetiæ* 4 *Idus April*, 1557. The date on the title page shows that it was printed in Paris in 1573. It is of course one of the oldest printed books in existence, and we regard it as a curiosity. Prof. Airy's doctrine that all matter consists of mathematical points merely, reminds us of Euclid's definition of a point, as given in his own words. He defines a point thus: Σημειον εστιν ου μερος ουθεν; ; which is translated as follows: *Punctum est cujus pars punctum nulla est*: A point is that no part of which is a point, as we translate it. Now what can that be, short of nothing, no part of which is a point? A point is nothing—mere *position* without magnitude. So that if, as Prof. Airy says, all matter consists of mathematical points, it must be nothing, or an aggregation of an infinity of nothings. Prof Airy, then, and Dr. Lardner, make the universe to consist of the following substantial materials:

Mathematical points	=	0
Physical energies	=	0
The whole universe	=	0

* Every thing but *money*, perhaps we should say.

Such is the absurdity into which philosophers run when they attempt to lift the veil which God alone can lift.

But even admitting the whole of the theories of Prof. Airy and Dr. Lardner, what do they explain? Is it not, after all, merely changing one name for another? Suppose we admit that heat is motion, do we then know more than we did before about the actual causes of phenomena? Certainly not.

The undulatory theory of radiant heat and light, which makes them to consist simply of the *vibrations* of an ethereal fluid pervading all space,—heat differing from light only in the length and duration of its vibrations,—has the merit certainly of ingenuity, and of explaining certain phenomena, *but not all;* and therefore we are excused from giving it our entire adoption. The utmost that we would admit—setting aside the materiality of light and heat—is that they may be the *effects* of motion, but not motion itself, as Dr. Lardner contends.

Dr. Lardner, it will be recollected, is the same one who, some years ago, when Professor of Natural Philosophy and Astronomy in University College, London, most confidently predicted, *ex cathedra*, that all the known laws of matter would render it an impossibility for a steamship to cross the Atlantic; and a certain learned English nobleman most emphatically endorsed the prediction, by declaring, from his seat in the British Parliament, that he would *eat* the first steamboat boiler that crossed the Atlantic! Of course, the impossibility was regarded as demonstrated, after such a display of prophecy. Whether the noble lord did actually *eat* the first steam boiler that went over, is not to be found on record.

The utter failure of Dr. Lardner's prophecy was an awful shock to the tripod of University College; but the learned Doctor seems to have survived the shock remarkably well—so far at least as to be enabled to write, for the benefit of mankind, and for the especial enlightenment of Americans, the "Hand-book of Philosophy" now before us; in which, we perceive, that his fondness for prophecy is in no degree abated. At page 180 he makes a formal attack upon Mr. Ericsson's Caloric Engine, ridiculing it, pronouncing the principle upon which it is built "fallacious," and predicting its failure. Here again we have more proof of the infallibility of the learned English philosopher, Dionysius Lardner, D. C. L.; for since the prediction was written, Mr. Ericsson has actually navigated the Atlantic ocean with his Caloric Ship, the principle of which being thus demonstrated to be a true one. What Dr. Lardner will say to this, it is difficult to imagine; but it will probably dampen his ardor for scientific prophecy considerably.

Dr. Lardner declares that the *absurdity* of the principle of Mr. Ericsson's Caloric Engine, is a "legitimate consequence of the hypothesis that heat is a subtsance, and therefore inconvertible." It follows, then, since the Ericsson Engine has completely succeeded, that the absurdity lies on the side of Dr. Lardner's theory of heat, if it lies anywhere.

There are a uumber of other subjects in Dr. Lardner's "Handbook" which we would take pleasure in reviewing; but the limits of the present paper would not admit of it. Notwithstanding Dr. Lardner's imperfections, his book is a valuable one, and as such we recommend it to all.

A. W. E.

III.—*Passional Hygiene and Natural Medicine; embracing the Harmonies of Man with his Planet.* By M. Edgeworth Lazarus, M. D. New York, Fowler & Wells, 1852.

This, as stated, is from the prolific press of Fowler & Wells, whence emanates in a sluice such a variety of things as would make a moral, theological, philosophical, social, hygienic, dietetic and medical museum of the most fantastic and motly character.

Specimens: *Passions of the Human Soul*, by Charles Fourier; *Social Destiny*, by Albert Brisbane; *Love in the Phalanstery*, by V. Hennequin; *Children of the Phalanstery*, by Cantagrel; *Consuelo and Countess of Rudolstadt*, by G. Sand; *Works of Goodwin, Barmly and other Socialists; Gulliver's Travels; Water Cure applied to every known disease; Hints on the Reproductive Organs, Love vs. Marriage, The Human Trinity, Homœopathy, Slavery, Involuntary Seminal losses, Universal Analogy*, and the *Illustrated Water Cure Almanac.*

The book before us, like most of its family, a few only of which are above designated, seem to be made up of portions of all the rest. Indeed it is matter of surprise how so many books, with such a variety of sonorous titles, can be made from the same staple. Doubtless it is one of the peculiar attainments of the age in which we live. It must not be denied, however, that this volume is somewhat specially devoted to the advocacy of Socialism, as proposed in the Philanstery System of Fourier. Incidentally, too, it lends its help to Homœopathy, Grahamism and Spiritual Rappings.

Like all other Socialists, the author is severe upon civilization, morality, and all the laws and usages of society as it exists. Nor is he mild upon some who have zealously, but very unsuccessfully, endeavored

to " follow in the footsteps of their illustrious predecessors," Fourier, Brisbane, &c. Witness the following, pp. 268–69 :

"Whoever speaks of industrial organization without a perfect recognition of the triune law of distribution, attested by all the known harmonies of the universe, is completely innocent of social science, and has no affiliation with Fourier or Phalansterians other than that extended by mere courtesy. It is to the ignorance of this fact is due the disastrous misconception of the American public, through the abuse of the term phalanx by absurd little associations in various parts of our country, aided by the unfortunate defences of false friends among our smart, superficial charlatans of the press, such as Horace Greely and other mere civilized moralists."

Et tu Brute !

That he would not do things by halves, in a communist way, we might prove by quotations respecting the intercourse of the sexes ; but as these would be inappropriate until the instincts of Harmonic life, through the serial progression of planetary unity shall elaborate the Trinity of Incarnation and in Industrial Organization,—by the fusion of individual rights and interests in their corporate spirit, by the equilibrium resulting from judicious interchanges, in operating by short sessions, and by the enthusiasm created in defense of collective unity ; we say, until these multiform and doubtless potent agencies shall have changed the order of things and the tastes of our readers very decidedly from what they are known to be, in this age of social subversion and civilized degeneracy, we think it better to forbear.

On another matter of much importance, and which costs the family and the state, both solicitude and treasure, we cannot refrain from giving a glimpse of the new light.

Discoursing upon the " Little Hordes," whom he, quoting from Fourier, denominates "*the soldiery of God*," " preservers of social honor," &c., he says, page 281 .

" In order to obtain such prodigies of virtue from childhood, it would seem necessary to recur to supernatural means, as our monastics do, who by very severe noviciates accustom the neophyte to abnegation of himself. However, the opposite course will be followed ; with the Little Hordes only the stimulus of pleasure will be employed.

Let us analyze the sources of their virtues ; they are four, and all reproved by moralism ; namely, THE LOVE OF DIRT, PRIDE, IMPUDENCE, and INSUBORDINATION. It is by giving themselves up to these pretended vices that the Little Hordes elevate themselves to the practice of all the virtues. Let us examine this, availing ourselves of an infallible guide: [the analysis and synthesis of passional attraction.]

I have said that the theory of attraction must confine itself to the one end of making useful the passions such as God gave them, and without changing any thing. In support of this principle I have justified nature in several attractions of an early age,

which have seemed vicious; such are curiosity and inconstancy; their true end is to attract the child into a number of seristeries in whicb his natural vocations may develop themselves. Such too is the propensity to seek the company of older blackguard boys; because from them, in harmony, the child receives the impules and the charm which draws him on to industry (ascending emulation, chapter XIX.) DISOBEDIENCE TO PARENTS AND PRECEPTORS is another; because they are not the ones who ought to educate him; his education should be effected by the cabalistic rivalries of the groups. Thus all the natural impulses of early youth are good, and even those of more advanced youth, provided they be exercised in passional series."

The capitals are ours, and used only to indicate with greater force the four or five distinguishing virtues which, from the days of Adam to those of Fourier, have been so differently regarded by both the wise and unwise; the good, bad and indifferent of the human family. This is only a sample.

As a specimen of the vegetarian philosophy which this hygienic treatise embodies, and a very fair one, we think, both as regards perspicuity of style and soundness of doctrine, take the following from pages 50, 51 and 52.

"After all, the essential fact is that of communion and interchange of benefits, according to the most approved formulas of self-appropriation, which in the communion of the social affections may become the most devoted love.

Our food does not nourish us truly, does not supply force to our muscles, senses, affections or intellect, except by the aromas which we elaborate from it, until it thus becomes the same invisible, or at least unseen neuro-magnetic fluid which passes from one living body to another. This is the essence of the blood, as the blood is the result of the aliment. Thus by nourishing ourselves from living rather than from dead bodies, we economise the time, trouble and expense of force in killing, cleaning, cooking, serving, masticating, digesting, and absorbing them into our blood, and we get the vital influx of power and affection by direct communication of their nervous systems with ours.

We are instinctively sensible of this advantage, especially children, of whom is the kingdom of heaven. Thus, as soon as we individualize an animal, and come into personal relations of use and pleasure with it; as it is with dogs and horses, with the child's pet lamb, calf, kid or chicken, we are outraged at the proposal to kill and eat it.

We are eating it already every day in a finer form. We feed on it aromally, i. e., spiritually and materially at once, in a compound manner; since the aromas, such as heat, light, electricity, galvanism, magnetism, the nervous aura, are the blending points of harmonic expression between spirit and passion, and integrate them in living beings. They form the practical element in the solar trinity, in which the active, caloric or love element is found working in the material world of concrete beings, under the guiding influence of light, or the intelligence of law."

Clear as mud; much clearer than the bulk of the volume, or any of its "associated series;" for do we not herein perceive, that in cases

of shipwreck or other disasters, by which food of the ordinary kind is unattainable, and so many lives for want of this new light-house have been lost by starvation, it will hereafter only be requisite to ascertain the "most approved formula of self-appropriations," in order to enjoy that "communion and interchange of benefits" which seems the higher order of nourishment and enjoyment, and can continue it "day after day, week after week and year after year"? In other words, a few pet animals, be they dogs, lambs, calves or poultry, and we suppose if the famishing be not Jews—swine, also, will, under this formula, constitute "the practical element in the solar trinity" by which they shall not only be nourished indefinitely by and among themselves, but with a vast economy of time, fuel, ironmongery, and wear and tear of digestive machinery, shall also sustain "spiritually and materially, at once and in a compound manner," after the most agreeable aromal fashion, all the integrated beings around them. Viewing this as a sane idea, this formula would be worth knowing; but after pretty diligent search, we have not been able to find it in the copy before us.

Having glanced at a very few of the many follies contained in this and similar volumes, whose authors seem to expect to cover up and conceal the shallowness and incoherence of their philosophy and the meagreness of their scientific researches, by the jargon of technics and the dust and splutter of their unjust and ribald censures of every thing valuable and of good report, we turn with pleasure to the one redeeming feature amidst the general and repulsive deformity of the picture. Upon the "Public Health of Cities," our author is decidedly more clear and practical than on aught else of which he treats. On pages 416—17–18 he says:

"Societies in which such combinations had acquired the ascendency in numbers, or even without superior numbers, the ascendency in legislative power, on account of the unity of their action, can quickly strangle those conspiracies against the life and well-being of the people, which laugh at the feeble good intentions of our so-called reformers. Conspiracies, did I say? Yes, every organized public temptation to vice is a conspiracy. What plot of treason or murder ever did the thousandth part of the mischief of our bar-rooms and grog-shops, where the adulterer or manufacturer of false wines and brandies is in league with the retailer, and a covey of sots always on hand act as purveyors of custom?

Individual liberty demands the suppression of public temptation to vice in all its forms, and there is no truer step in real liberty than the prohibition of the retail liquor trade.

It is already recognized that slaughter-pens, distilleries, tallow chandleries, gas-works, and other establishments, however useful, which offend against the senses of the mass of citizens, become local nuisances, and are amenable to the municipal authorities, and subject to removal on complaint of neighbors. Nor is any citizen per-

mitted to keep dangerous beasts on his premises, as a tiger, a panther, or even a bear, although chained. If then we admit legal guarantees in favor of the senses, we owe them for a much stronger reason to the social affections, and where have these to fear a more ruthless enemy than the grog-shop, or a greater nuisance than drunkenness, or a more dangerous wild beast than the drunkard ?"

The queries put by him in these quotations are in the highest degree pertinent and solemn. In this city we have had enough and more than enough, of families ruined, a treasury drained by expenses inseparable from the police and criminal establishments rendered essential by grog-shops, of savage murders committed within their walls, of corrupted suffrages, broken hearts and prostrated intellects, to make us cry out with one united voice for deliverance from these conspiracies against our public and private welfare.

Honor to whom honor is due.

We are indebted for the volume before us to Mr. J. C. Morgan, whose enterprize keeps before his customers and the New Orleans public a variety of the newest and rarest issues of the modern press, both in its periodical and permanent literature. J. S C.

V.—*Maclise's Surgical Anatomy; with additions from Bourgery, etc.* Edited by R. U. Piper, M. D. Boston and London, 1833.

This *Part*, which is the first one issued by the American Editor, contains plates representing the form of the *thoracic cavity, and the position of the heart, lungs and larger blood vessels.* In plate *Second*, the surgical form of the superficial cervicle and facial regions, and the relative position of the principal blood-vessels, nerves, etc., are very well represented, and accurately described in the text. To add to the force of the illustration, some of Bourgery's plates, descriptive of this part of Surgical Anatomy, has been here introduced by Dr. Piper. They greatly enhance the usefulness of the work, and will therefore be duly appreciated by the American student of Anatomy.

We are not advised as to the number of " Parts" to which this work is to be extended ; we presume, however, they will be continued until we shall have a complete picture of Surgical Anatomy, at which time we shall be the better enabled to judge of the merits and advantages of such a work at this time.

IV.—*The Macrocosm and Microcosm, or the Universe Without and the Universe Within, being an unfolding of the plan of creation and the correspondence of truths, both in the World of Sense and the World of Soul. In two Parts.* By WM. FISHBOUGH. New York, Fowler & Wells, 1853.

As this seems to be only a part of the whole, and in its "present stage of development" rather beyond the scope and verge of minds not trained in the school to which it pertains, it would be improper, and might be unjust, to venture upon any extended examination of its doctrines at present. Suffice it to say, there are evidences of vigorous thought and commendable research, though unchastened by that homely and useful handmaid of all science—common sense.

Our author sets out in his preface, page 4, by claiming a discovery, as follows :

"I have ventured to hope that this defect in the mode of philosophizing might prove to be in some degree supplied by a discovery, the fundamental principles of which came into my mind some four years ago, in a manner quite extraordinary, but of which I need not now speak particularly. This discovery, which I have called 'the law of the seven-fold correspondential series,' or 'the harmonial scale of creation,' is to some extent unfolded and applied in the present volume, though but a small portion of the evidences of its truth and instances of its applicability are herein exhibited.

The main idea embraced in the discovery referred to is, that each complete system or sub-system of creation, however great or small, is resolvable into seven serial parts or elemental degrees, corresponding to the seven notes of the diatonic scale ; that as composed of such parts, the systems are arranged side by side, or have one above another, as so many octaves, corresponding to the octaves in music ; and that like them, each one serves as a general exponent of all the others, whether on a higher or lower scale. This idea, with its natural adjuncts, of which I cannot here speak particularly, by harmonizing and unitizing all natural series and degrees of creation, also clearly illustrates the fact that all truths are involved in and evolved from one grand central Truth ; that they are indeed but parts and degrees of that one fundamental truth, which are ultimated in the various forms of embodiment which compose the sum total of created existence. By pursuing the method of reasoning which this idea unfolds, I have endeavored to make one portion of the system of nature expose the secrets of another, and caused visible facts and invisible principles to mutually cast their light upon each other."

Paracelsus proclaimed his elixir, and pronounced the principles of the medical art wholly erroneous. Brown resolved every ill to which flesh is heir, into *two* diseases, and restricted their treatment to the use of *one* remedy. Broussais, reversing his order, taught *one* disease and *two* remedies. Hahnemann, "the sage of Cœthen," summa-

rily dispenses with all reasoning and all material remedies; substituting in their stead the veriest nothing that an infinitesimal intellect ever groped after; but here is an idea. This "*law of the seven-fold correspondential series*," is most incontrovertibly musical, and must, we think, be something of which Solomon had not obtained possession when he delivered his opinion on novelties. We know he had "men singers and women singers," perhaps equal to our modern minstrels in voice, but by no means so in their philosophy.

The superiority of modern to ancient and divine inspiration, is further assumed in the following short paragraph:

"But let me not be understood as arguing that the matter of this universe was created by God out of nothing. The mind cannot conceive of any such thing as nothing, or of something coming out of nothing, and therefore the idea may be at once dismissed from the mind as being itself a mental nothing. But if we suppose that spirit is an essence, and that matter, as such, was created out of this essence, there will at least in this be no violation of the laws of thought; and the reasons on which such suppositions may be grounded will incidentally and more distinctly appear as we proceed."

We suppose it to mean that the Infinite Creator could make a world out of material, or its equivalent, previously existing, but could not make all things of nothing, as Moses declares he did. We cannot of course enter upon this question here. Suffice it, that the most rabid of the infidel school of Geology would be loath to approach so intimately the mælstrom of Atheism.

However, it will be but fair and just to allow the author the benefit of one of his luminous explanatory paragraphs on this point. We extract from page 53.

"But as the animal kingdom, physically speaking, was previously contained in the vegetable, and the vegetable kingdom was contained in the mineral, and so on throughout the descending scale, so the great original universal kingdom of unformed matter, and whose undeveloped properties and principles were typical of all subsequent and subordinate kingdoms, was itself as one kingdom, previously involved in the infinite, eternal and unoriginated kingdom of spirituality, which, as before shown, constitutes the Divine Spirituality. This Kingdom of Spirituality—in other words the Divine Personal Being—comprises therefore not only the material or substantial, but the spiritual and volitional, and hence the entire elements of the Cause of all things in universal creation; and hence the Creator and the created must stand as mutual exponents of each other."

For the benefit of musicians, especially those who are fond of investigations into the laws and serial harmonies of this outer world, we subjoin the following from pages 58—9.

"But we have seen that Nature, as a whole, is divided into many systems, kingdoms, or more properly speaking, Discreet Degrees, rising one above another. Each one of these kingdoms or degrees (as will gradually be illustrated in what follows) contains within itself the seven-fold series of parts, as the natural evolution and production on a higher scale of the seven-fold series of the degree or kingdom immediately below it in the order of development; and all of these, separately and collectively, are evolutions from and correspondents of the divine seven-fold constitution, which is the Originator and Cause of all. Each one of these seven-fold series, moreover, corresponds to the diatonic scale in music, and which, with its seven constituent notes, is therefore its natural oral interpreter and exponent. Thus the various degrees or kingdoms of natural development may be considered as octaves, rising one above another, the same as the octaves in music. Each octave exactly corresponds to, and harmonizes note by note, with all other octaves, whether they be on a higher or lower scale; so that if we fully understand any one octave, degree or kingdom of natural development, we have in it a measure and exponent of all others. Thus the system of Nature, as a whole, may be considerod as one grand Musical Organ, compassing all these octaves, and which in the hands of the Divine Organist, the Divine Being, in whose infinite series of octaves of Love and Wisdom exists the very soul and origin of all harmony, is capable of sending forth everywhere those silent notes of harmony and music which have been perceived and deeply felt by every truly elevated and interiorly developed human soul!"

Again, on pages 66—67, we have a continuance of this musical theory, blended with other curious notions respecting the attributes, power and functions of God.

"With respect to the origin, structure, laws, etc., of the universal cosmical system, we commence our reasonings with a postulate which, whether strictly true or not, cannot lead us into important error in our subsequent deductions, since we have so many correctives of inharmony, as involved in the general series of corresponding and harmonious octaves of developments through which the path of our investigations will lead us. The postulate is that God, from the promptings of his own interior soul, which is Love, under the direction of his Wisdom, which gave order and form to the operations of Love, formed from the most exterior, or if the expression may be allowed, the least divine and most nearly physical portion of his own personal emanations, as many degrees, varieties, or perhaps classes of atomic particles as corresponded to the general seven-fold harmonies of his own Infinite nature. The supposition that the varieties of these primitive atoms are in number just seven, or a multiple of seven, is admitted to be purely a priori, but is a legitimate deduction from principles before established."

Here we have the honest acknowledgment, that this theory of a harmonious, universal, cosmical system of serial developments, correspondential affinities and diapasonic dependencies, is, if not purely fanciful, at least uncertain, even in the judgment of its enthusiastic discoverer.

The book, in many respects, possesses merit; and we can only regret to witness the eccentricities of a fine but unstaid intellect, as man-

ifested in its pages. We sincerely hope the succeeding part—or Microcosm, may not only in itself, be liable to fewer objections, but may also correct some of the errors of its predecessor.

The volume is on sale by J. C. Morgan, to whose courtesy we owe our acquaintance with it. J. S. C.

V.—*Proceedings of the Texas Medical Convention.*

From the proceedings published by the Convention, we learn that its first meeting was held in the city of Austin on the 17th day of January, 1853, when Dr. S. K. Jennings, of Travis, was called upon to preside over the Convention, assisted by the following Vice Presidents: Drs. J. Taylor, W. A. Morris, and J. Gaines. Dr. A. J. Lott was appointed Secretary.

On motion, thirty-five members registered their names as members of the Convention.

The Convention adopted the title of "*Texas Medical Convention*," by which it is to be hereafter known. It sat three days, and adopted a good Constitution and a well digested set of By-Laws.

Dr. James Gaines, of Milam county, was chosen orator, to deliver the address at the next annual meeting of the Association.

Our sister State, *Texas*, which possesses agricultural and commercial advantages not inferior to any in the South or West, begins to develop also her intellectual resources; and the Medical Profession of that State already rivals, in talent and mental endowments, many of her elder sisters. She may indeed boast of her Smiths, her Massies, her Heards, and others, personally unknown to us, but who are destined, we verily believe, to adorn and extend the reputation of the profession, far beyond the boundaries of their adopted State.

Our list of subscribers in Texas, now daily increasing, induces us to believe that the Medical profession of that rich portion of the South, is fully aroused and determined to keep pace with the progress of medicine.

We have more than once enriched the pages of this Journal with papers, essays, &c., written by some of the eminent practitioners of Texas; and we trust we may be favored in future with the experience

and observation of others, whose modesty may have prompted them to withhold their names from the public.

Medically, we regard Texas, as she is topographically, a part and parcel of Louisiana; and we therefore hail her efforts in the cause of medical progress with sincere pleasure and the most unalloyed satisfaction.

VI.—*Transactions of the Kentucky State Medical Society, October*, 1852. Louisville, Ky.

This Society held its second annual meeting in the city of Louisville, on the 20th October 1852, the President, Dr. W. L. Sutton, in the chair. Over sixty-five members appeared and took part in the proceedings of the Society. Three days, of two sessions each day, were consumed before the Society brought its proceedings to a close.

The special committees were as follows for the next annual meeting:

1. On Medical Biography or the lives of meritorious or distinguished Physicians or Surgeons of Kentucky, Dr. Breckenridge of Louisville.
2. On Medical Literature, or the history of the medical authorship of Kentucky, Prof. L. P. Yandell, of Louisville.
3. On the relation between diseases and particular geological formations, Dr. Peter, of Lexington.
4. On the Statistics of Hernia, Dr. S. B. Richardson, of Louisville.
5. On the Statistics of Lithotomy and Calculous Diseases, Dr. Gross, of Louisville.
6. On the History and mode of management of Hospitals, Dr. Raphael, of Louisville.
7. On the history and mode of management of Penitentiaries and Prisons, Dr. W. C. Sneed, of Frankfort.
8. On Suits for Mal-practice, Dr. Spillman, of Harrodsburg.
9. On the Results of Surgical Operations in malignant diseases, Dr. Colescott, of Louisville.
10. On Epidemic Erysipelas, Dr. Owen, of Henry county.
11. On Epidemic Dysentery, Dr. Hynes, of Bardstown.
12. On Typhoid Fever, Dr. Fry, of Louisville.
13. On Placenta Prævia. Dr. Miller, of Louisville.
14. On the Statistics of Remedies in Disease, Dr. Lewis Rogers, of Louisville.

This part of the business over, the President, Dr. Sutton, delivered a very handsome address, "*On our duty to the profession, and our duty to the community in which we live.*" Throughout it is characterized by elevated sentiments, good sense, and a genuine love for the honor and prosperity of the medical profession—many parts of it are too fine to be passed over with a casual notice,

but our space is too limited to permit us to give extracts from this address. It should be read by the entire profession.

The Transactions number over 130 pages; are handsomely printed, and many of the subjects reported on by the various standing committees, are illustrated by well executed maps, diagrams, etc.

Kentucky never does any thing on an insignificant scale; and the labors of her medical men (vide Transactions) give abundant evidence of the industry and intellect which are being applied to the elucidation of her medical and surgical history.

These Transactions embrace "*Reports*" on the following scientific subjects, all of which are elaborate, well digested, and of the highest interest to the profession, viz:

1st, On Vital Statistics; 2d, Medical Ethics; 3d, Obstetrics; 4th, Speculum Uteri; 5th, on Registration; 6th, Affections of the Head; 7th, Affections of the Spine; 8th, Affections of the Neck and Chest; 9th, Affections of the Abdominal Organs; 10th, Affections of the Pelvic Organs; 11th, Elm Bark as a Surgical Agent; 12th, Amputation; 13th, Traumatic Tetanus; 14th, Exsections; 15th, Plastic Surgery; 16th, Tenotomy; 17th, Army Surgery; 18th, Surgeons and Physicians of Louisville; 19th, Affections of the Extremities; 20th, the Bandage as a Therapeutic Agent; 21st, Affections of the Genital Organs in the male; 22d, Affections in the Genital Organs in the Female; 23d, Affections of the Arteries; 24th, On Indigenous Botany; 25th, On Epidemics; 26th, On the Cholera in Lexington; and lastly, report of the committee on Case Book.

From the above list, the reader will perceive that the reports of the various committees covered an immense field of observation and practice; and faithfully have they discharged the arduous duties assigned them. Some of the cases and observations contained in these reports are so instructive, and others so unique, that we are tempted to lay some of them before our readers, in the appropriate department of the Journal. In our future numbers we shall have occasion to refer to the mass of facts embodied in these highly interesting Transactions of the Kentucky State Medical Society.

In conclusion, we may state that in medicine, as in every thing great and noble, Kentucky is equal to any State in this glorious Union.

VI.—*Lectures on the Science of Life Insurance, addressed to families, professions, etc.* By Moses L. Knapp, M. D., Secretary of the Fraternal Mutual Life Insurance Company, late Professor of Materia Medica of the University of Iowa, etc.

New Views on Provisional Callus. By Frank H. Hamilton, A. M., M. D.

Hydatids of the Liver. Operation and Cure. By Edward Weber, M. D. From the New York Medical Times. New York, 1852.

The Necrological Appearances of Southern Typhoid Fever, in the Negro : with hints upon its Prophytaxis and Therapeutic management. By H. A. Ramsay, M. D. Colombia County, Ga.

Dr. Knapp has again presented us with lectures on Life Insurance in an official capacity—that of Secretary of the Fraternal Home Mutual Life Insurance Company.

In these lectures the advantages of life insurance are fully set forth, its origin stated, rate of mortality presented, with the practices of different companies, the mode of conducting examinations, medical jurisprudence considered in relation to insurance, its moral influence upon society, etc., etc., all of which lead, under the guidance of Dr. Knapp, to the happiest results, which may be included in "the blessings of life insurance."

Without questioning the advantages which not only may, but actually do arise in a vast number of cases, to the insured in properly and fairly conducted companies, we are far from believing that some of the "general principles" advanced have any thing to do with life insurance ; such, for instance, as that "the early Christians appear to have been the first life insurance company," and that the principle was adopted and practised by them when they sold off their individual possessions ; and also "the principle received the sanction of the Apostles and the Divine approbation." This surely is claiming much greater antiquity for life insurance than would be demanded by the insured, who, properly and justly regarding it as a matter of business—a secular affair, for which, upon payment of certain sums of money, the *quid pro quo*, at some future time, will to the parties indicated, be given ; and should the advantage be as stated by the writer, the "return of the sums invested, with compound interest," it would merely be presenting an additional claim for *human* "approbation;" since it cannot be denied that the Apostles work on earth, having received their appointment from their Divine Master to go and preach the gospel to all the world, was to draw the minds of their hearers from all earthly considerations, to preach Christ and him crucified, and to fix their affections upon heaven and heavenly things, and to ascribe to them the sanction and approbation of the principles of *well* or *ill regulated insurance companies*, would be to suppose them capable of violating the express commands of Him in whose service they were engaged, and of essentially *minding earthly things*. Again we read in the lectures, that "Ananias, with Sapphira his wife, sold a posses-

sion, and brought a certain part only of the price and laid it at the Apostles feet," for making a reservation of part of the price and thereby practising deception and fraud, Ananias was first stricken dead, and when Peter, about three hours after, demanded of his wife, whether they had sold the land for so much, and her answer was yea, for so much, that she likewise straightway fell dead at his feet; and for what were these two persons instantly visited with so signal a mark of the Divine displeasure? Obviously for practising deception with sinister motives and attempting concealment by a lie. This being, we think, the proper construction of the passage referred to, in what particulars, we ask, can it be discoverable that the *principle of life insurance certainly received the sanction of the Apostles and the Divine approbation*? Assuredly no such warrant can be found in the case cited—not even with the sincere conviction of Dr. Knapp to sustain it!

The first life insurance company was established in England, under the name of the "Amicable Society for a Perpetual Assurance Office," in the year 1706, and the first in the United States, under the name of the "Protestant Episcopal Association," in Pennsylvania, in 1769. What, may we enquire of Dr. Knapp, became of the *principle* and *practice* of life insurance during this long interregnum—more than seventeen centuries?—upon which head history and the writer himself have left us to conjecture. And why, having met with the *Divine approbation* in the early ages of Christianity, is there no connecting link for so many hundred years? We are forced to the conviction that Dr. Knapp, having mistaken the application of his text, his darling pet, over which he watches with so much solicitude—life insurance—cannot claim so great antiquity, but that being of man's invention and for man's benefit, the society of which he is secretary would be no less potent for good, no less extensive in the blessings which it diffuses, and in the moral influence which it exerts—be that great or small—had he rested its claims to public favor and patronage—upon which favor and patronage, we apprehend, mainly rests the *ability* of all insurance companies to dispense *tangible* evidence of their good to society—upon its own intrinsic merits.

Life insurance is certainly, we think, an excellent thing; we also think, that when Doctors publish lectures upon the subject, they should at least *insure* their readers against the follies of *antiquity!!*

Dr. Hamilton, entertaining somewhat new views on the formation of Provisional Callus, has placed them before the profession. The process of repair and reproduction after injuries of bone, have received, we are informed, the especial attention of Dr. Hamilton, and after a personal examination upon the living subject of nearly 600 cases, added to observations upon pathological specimens, have led him, for the most part, to discard the doctrine of Dupuytren on this subject, and to coincide mainly with those of Mr. Stanley and Mr. Paget; indeed had it not been for a series of lectures which were delivered by this last named gentleman, containing an exposition of his views of the union

of broken bones, the writer would have regarded his own as original, but time and chance happening alike to all, Dr. H. brings his observation and experience to sustain the modern opinions of others, in the following language:

"While prosecuting my investigations for the purpose of ascertaining the average results in the treatment of fractures, several other points of interest have been suggested, some of which I have sought carefully to determine; that which arrested my attention earliest and which I have most attentively noticed all along, until I have at length reached a satisfactory conclusion is, the almost constant absence of provisional callus, both during the process of cure and in the result, where the fractured ends have been kept in tolerable apposition, and free from all undue excitement.

Although it has not escaped the observation of many shrewd writers that Dupuytren's experiments were all made upon brute animals, and they have therefore received with a prudent caution many of his conclusions, such as the period of time occupied in the several stages of reparation, the sources of the callus, etc., yet has it seldom if ever happened that they have called in question or expressed a doubt of the accuracy of his conclusions as to the main point, viz: the existence of a provisional callus as a temporary bond of union in all cases where bones unite by a natural and undisturbed process.

I think it is obvious that Mr. Liston had noticed the absence of provisional callus in simple and well-adjusted fractures, at least soon after the union was completed; a fact for which he offers the usual explanation, viz: that it is absorbed soon after deposition; yet he does not recognize its inconsistency with his preceding statement that in such simple fractures the 'effusion is limited to the divided parts.' But the fact that he had not noticed the presence of provisional callus even during the progress of restoration, seems probable from his account of what occurs in the opposite class of cases, where 'displacements,' etc., exist, for there is now, he informs us, 'great effusion of new matter or callus.' The terms callus or new matter being here first employed."

Mr. Stanley, in the preface to his "Treatise on the Diseases of Bones," says:

"Experiments in animals have not accomplished so much for the elucidation of the reparative process of bone in man as might probably have been expected; the circumstances attendant on the fractured or necrosed bone in man, are essentially different from those of the experiment of breaking, or causing the death of a bone in animals; thus around the fractured bone of an animal, the deposit of cartilaginous and osseous substance, which has been designated provisional callus, is of uniform occurrence. But in the human subject no such cartilaginous and osseous deposit uniformly takes place around the fractured bone; here therefore it is not a part of the reparative process."

Dr. Hamilton goes a step beyond, and observes:

"I am now prepared confidently to affirm that the so-called provisional callus never constitutes any part of the reparative process in the union of divided bones, when all those circumstances of simplicity, apposition, quietude, health, just management, etc., obtain, which may properly be considered essential to a normal process; that bones unite most naturally by definitive callus, and that provisional callus is accidental and secondary; the result probably of undue excitement alone."

If the amount of provisional callus in any way depend upon the mobility of the parts, then will its presence be more manifest in animals of the brute creation than in the human body, on account of the much greater difficulty of preserving the bones in apposition. In fracture of certain bones invested with synovial membrane, as for instance, the neck of the femur, the formation of callus is less uniform, even if it be present at all; and in fracture of the cranium, with no motion of the bones and little soft part to put on inflammatory action, union may generally take place without the provisional callus, but with regard to the union of bones at other parts of the body, the authority of surgeons is, we think, vastly against the opinions of Dr. Hamilton; in those cases of fracture, where the bone and its investment are simply divided and misplaced, and quietly put in opposition, thereby preventing much inflammatory action and effusion, there will most probably be no perceptible deformity at the point of union, the new matter having been absorbed; but as, for the most part, divided bones occur under less favorable circumstances, there being much displacement, and very frequently extensive injury to the soft parts, callus will generally be found.

The opinions of Dr. Hamilton and Professor Paget are well worthy of careful consideration and observation, upon which ground their doctrine must either be definitively settled, or not being sustained by this test, will, after the lapse of time, cease to be entertained.

HYDATIDS OF THE LIVER.

A remarkable case of Hytadids of the Liver has been published by Dr. Weber. The subject was a German, aged 26 years, who resided in the State of Illinois, where the case was diagnosed and for some time treated; at length the patient went to New York, where the previous diagnosis was concurred in by several physicians, and on the 19th of May, 1851, the operation was commenced by introducing a trochar, and through the canulla a fluid resembling whey passed; an incision was then made down to the liver, which was punctured, with the same result as when thrust through the integuments; no hemorrhage occurred, and the patient was placed in bed.

On the 5th of June the second operation was commenced, and a fetid fluid evacuated, in which were fragments of broken cysts floating; microscopic examination, in the presence of a number of medical gentlemen, led to the conviction that they were the remains of the true hydatid cysts. The opening being enlarged, entire cysts flowed out in large quantity; at this time there was hemorrhage. Subsequently, at intervals, fluid, varying in quantity from three to twenty ounces, was evacuated; and in the beginning of October, there remained but a small fistulous opening. This, in January, 1852, entirely closed, and the patient, who had become much emaciated, was in a short time entirely restored to health.

In his sketch of Southern Typhoid Fever in the Negro, Dr. Ramsay has, in few pages, thrown much interesting matter, occasionally halting by the way, and giving reins to a somewhat exhuberant fancy, to remind some Southern journalists of the error of their ways, in *prostituting their periodicals to cliques and colleges*, and in building up some new, and putting down others, without regard to the quality of the *material*. "Village doctors" are sometimes considered out of place, Southern Medical Literature contained within very limited foci, and the alumni of its schools, seemingly moved "by an insatiable ambition of an immense magnitude, respecting neither truth or fairness."

These are rather sweeping denunciations, and require specification by the writer in order to render them *individually interesting*, but perhaps they were made at random, the Doctor having no "delight to pass away the day" upon a single subject, without indulging in the "pleasures of imagination;" but as we are not able to decide upon the merits of his case (which the reader is left to guess at), we shall at once throw ourself into a *feverish state*—the type of which will be typhoid.

The present paper is intended as an addendum to an article upon Southern Typhoid Fever, by Dr. Ramsay, which is now passing through the press, and which fever is, in the opinion of the writer, a disease *sui generis*, none other possessing the same pathological phenomena, or the same diversity of living symptoms; and further, the glands of Peyer and Brunner being more affected and enlarged in the Southern negro than in the northern subject.

From autopsies made by Dr. Ramsay, he has arrived at the opinion, that the brain, lungs and heart of the negro are smaller than those of the white man, whilst the liver, kidneys and glands are larger.

The nervous system, with reference to sensation, is less developed than in the white, which may render them less susceptible to convulsive affections. In continuation of his subject, the writer observes, "To confirm this opinion, we appeal to our morbid preparations, our autopsies and our observations, as well as the reports of others, who have made autopsies in colder climes, which differ from ours, not in the essential seat of the disease, but in the prominence and development of the glandular affection. We do not wish to be understood as saying, that Typhoid Fever South, differs in its pathological location from the same disease North, but only in its development, which we conceive is controlled by topographical, meteorological, hygrometrical, and other causes, inducing a modification of symptomatology, and a corresponding change of treatment."

Dr. Ramsay passes over the abortive treatment of this fever with quinine in silence, and urges the importance of keeping the bowels in a state of quietude. "To purge is to kill; to bleed is death." When laxatives are used, they should be of the blandest character; to conduct the disease to a successful issue, medication should be sparingly employed.

In mental capacity, the negro is regarded by the writer as so very inferior, that education can do little for him; he observes, "Every ingenuous mind in the South knows, that African intellectual progression is beautifully slow, and

intensely dull, in this country; from present appearances, predicated upon scientific researches, it will probably remain in statu quo by irrevocable destiny. We believe that the negro succeeds better in agticulture and medicine, than any thing else."

This, however, is a departure from the subject of disease, and one upon which most Southern readers have, we imagine, already formed an opinion, though that opinion may not be so annihilating to every elevating thought, every ennobling sentiment, every purifying affection, as that which consigns them to darkness without hope—a darkness fixed "by irrevocable destiny."

G. T. B.

New Orleans, April 7, 1853.

VII.—*Remarks on Osteo-Aneurism—with a case involving the Condyles of the left Femur.* By J. M. Carnochan, M. D. With Plates. New York, 1853.

Dr. Carnochan's feats in Surgery are building up for him a lasting fame all over the country, because he enters thoroughly into the merits of his subject; studies it with care and patience, and describes it with accuracy and force. His operations on the jaw have shed no ordinary lustre upon American Surgery; and scarcely had we ceased to wonder at and admire these achievements, when we are again directed to his novel case of "Osteo-Aneurism." Speaking of this latter disease, he remarks:

"The first description of this disease dates no further back than the close of the last century, when Pearson of England, in 1790, and Scarpa, in 1792, reported each a case of this disease of the osseous tissue. More than a quarter of a century elapsed before any new facts were reported; and it was not until the year 1826 that science was again enriched by the observations of Dupuytren, Lallemand and Breschet, on the pulsatory tumors of the bones. More recently, cases of pulsative tumors of the bone have been furnished, principally by MM. Roux and Velpeau, of France; and by Liston and Handyside, of Scotland; but it is to be inferred from the descriptions of some of these cases, that they were not strictly cases of Osteo-Aneurism."

Dr. Carnochan is evidently aiming to acquire a just and lasting fame by his surgical operations, and we bid him God speed in his laudable efforts. He is now one of the most prominent Surgeons of the great metropolis.

We thank Dr. C. for his favors.

VIII.—*A System of Practical Surgery.* By Wm. Fergusson, F. R. S., Professor of Surgery in King's College, Surgeon to King's College Hospital, etc. Fourth American from the third London edition. With 393 Illustrations. Philadelphia, Blanchard and Lea. 1853.

This excellent practical work has been for some time in the hands of the profession, having already reached in London the third, and in America, the fourth edition; indubitable evidence of the great merits of Mr. Fergusson's "*System.*"

Of this edition the author says, "Considerable additions have been made to it; but there will yet appear much wanting towards perfection, especially in the estimation of those who look for something pertaining to all Surgery under the title of 'System.'"

This then is a sufficient guarantee that this edition will meet the wants and fulfil the expectations of the American medical student and practitioner. The plates, of which there are a great number, are well executed, and give additional value to the work.

White, 105 Canal street, has a number of copies for sale.

Part Fourth.

MISCELLANEOUS MEDICAL INTELLIGENCE.

I.—PROCEEDINGS OF THE LOUISIANA STATE MEDICAL SOCIETY,

At its Fourth Annual Session, held in the city of New Orleans, March, 1853.

NEW ORLEANS, *March* 14, 1853.

Pursuant to public notice, the Louisiana State Medical Society was this day convened at 12 o'clock, M., in the Hall of the Medical Department of the University of Louisiana, to hold its annual session.

The President, Dr. J. M. W. Picton, having taken the chair, the Society was called to order, the roll of members read, and the business of the Society commenced.

The following members answered to their names, viz:

The President, Dr. Picton, and Doctors Barton, Bein, Browning, Ball, Benedick, Baldwin, Mr. Bolton, Doctors Copes, Bennett Dowler, Fenner, Farrell, Hale, Henderson, McKelvey, C. W. Porter, Rouanet, Randolph, Simonds, and Howard Smith.

The Corresponding Secretary was now called upon by the President to report to the Society respecting the *projet* which was ordered to be printed, at a special meeting of the Society; whereupon Dr. Simonds stated that the *projet* had not been printed according to resolution, the chief reason being an empty treasury.

The names of the following candidates for membership were read over, and upon motion taken up seriatim and unanimously elected, viz:

F. B. Page, M. D., Donaldsonville.

J. Sabin Martin, M. D., New Orleans. B. Laplace.

J. L. Crawcour, M. D., New Orleans.

J. W. B. McGimsey, M. D., Baton Rouge.
J. Dominique, M. D., Ascension Parish.
Geo. C. Colmar, M. D., Springfield, Livingston Parish.
Samuel D. Campbell, M. D., New Orleans.
Sigismond Kisffy, M. D., New Orleans.
Adolphus Bruenn, Apothecary, New Orleans.
A. Broussard, Apothecary, New Orleans.
John S. Sandford, M. D., Alexandria, La.
D. Elliot, M. D., New Orleans.
—— Albuzzi, M. D., New Orleans.
D. Macgibbon, M. D., New Orleans.
R. M. Graham, M. D., New Orleans.

Dr. Bein then moved that the annual address of the President be read to-morrow instead of this day (Monday) and that the Secretary give notice of such postponement in the Picayune and Delta, and the French side of the Courier, and invite the attendance of Physicians and the public generally.

Dr. Copes moved a suspension of the rules, and the question upon the postponement of the President's address was then put to the Society and carried.

The Secretary then read the annual Report of the Board of Administrators, which, upon motion, was received and adopted.

On motion, the resolution of Dr. Barton, on page 3 of the printed proceedings, was called up; whereupon Dr. Henderson moved "that the resolution of Dr. Barton be amended, so that it shall read thus: That no member be eligible to any office of this Society unless he be an attendant at the session."

The above resolution having been seconded, was put to the Society and carried.

The President suggested a revision of the Constitution and By-Laws during the present session; whereupon Dr. Simonds offered the following resolution:

Resolved, That the pending resolution of Dr. Barton, with the Constitution and By-Laws, be referred to a special committee of three members, to report during the present session of the Society. Carried.

The President appointed on said committee the following members, viz., Drs. Simonds, Barton and Fenner.

There being no further business before the Society, on motion, it was adjourned to Tuesday, the 15th inst., at the same hour and place.

G. T. Browning, M. D.,
Recording Secretary.

NEW ORLEANS, *March* 15, 1853.

The Society met pursuant to adjournment this day, at twelve o'clock, M., the President, Dr. Picton, in the chair.

The Secretary called the roll of officers and members, the following answering to their names, viz:

Doctors Axson, Bein, Barton, Browning, Ball, Benedick, Baldwin, Mr. Bolton, Doctors Copes, Dowler, Edwards, Fenner, Farrell, Foster, Hunt, Hale, Henderson, Hester, McKelvey, Moss, Nutt, Meux, Nott, Picton, Riddell, Rouanet, Randolph, Simonds, Smith, Stone, Tompkins, Ulhorn, Wedderburn, Dominique, Crawcour, Colmer, Kisffy, Reynolds, Albuzzi, Macgtbbon, Graham, and Mr. Bruenn.

The minutes were then read and approved, the omission of two or three names of members newly elected having been corrected.

Dr. Bein, Vice President, having been called to the chair, the President, Dr. Picton, read his annual address, which was elaborate and interesting. At the conclusion of this Dr. Riddell offered the following resolutions:

Resolved, That the thanks of the Louisiana State Medical Society be tendered to their President, Dr. J. M. W. Picton, for his eloquent and able address, to which the members present have listened with pleasure.

Resolved, That a copy of the address be requested for publication with the minutes and proceedings.

Carried.

The election of officers for the ensuing year was next declared in order, and after going through the prescribed form for said election, the following named gentlemen were duly chosen to the respective offices:

E. D. FENNER, M. D., New Orleans, *President.*

JOSEPH ROUANET, M. D., "
A. HESTER, M. D., "
J. W. P. MCGIMSEY, M. D., Baton Rouge,
J. DOMINIQUE, M. D., Ascension Parish,
THOS. COTTMAN, M. D., "

} *Vice Pres's.*

N. B. BENEDICK, M. D., *Corresponding Sec'y.*

D. MACGIBBON, M. D., *Recording Sec'y.*

E. C. BOLTON, Esq., *Treasurer.*

The newly elected President, Dr. Fenner, upon taking the chair, returned appropriate acknowledgments to the Society for the distinguished mark of approbation which it had conferred upon him, and assured the gentlemen present that it should be his endeavor zealously to discharge the duties imposed upon him.

A note from Thomas Hunt, M. D., Dean of the Faculty, was received and read to the Society, inviting the President and members of the Louisiana State Medical Society to attend the ceremony of conferring degrees upon the graduates of the Medical Department of the University on Thursday, 17th inst., at twelve o'clock.

On motion, the invitation was accepted by the Society.

The following gentlemen were duly elected members of the Society, viz :

Dr. William Carson, New Orleans.

Dr. William Malcomson, New Orleans.

Dr. J. C. Harvey, New Orleans.

Dr. A. Faget, New Orleans.

Dr. Francis Barnes, Tensas Parish.

Dr. V. Kauffman, Pointe Coupee.

Dr. George E. French, Alexandria.

Dr. J. W. P. McGimsey, Baton Rouge.

On motion, the Society then adjourned, to meet at the same place at seven o'clock, P. M.

G. T. Browning, M. D., *Rec. Sec'y.*

New Orleans, March 15, 1853.

The Society met this evening in the Medical College, according to adjournment, at seven o'clock, Dr. Fenner, President, in the chair.

The minutes of the previous meeting were read, and after some slight alterations were approved.

The reading of the roll of members was on motion dispensed with.

The Treasurer read to the meeting his annual report. The same was on motion received and ordered to be filed.

The President appointed Doctors Hale, Smith and Tompkins a committee to examine the Treasurer's books and accounts, and to report thereon to the Society.

Dr. Farrell moved that the Society place at the disposal of the Dean of Faculty of the Medical College the spare copies of the printed proceedings of last year; which being seconded, was put and carried.

The President then called up the different standing committees in their order, to present their respective reports.

Dr. Josiah Hale, chairman of the committee on Botany and Natural History, presented his report on the Pepperworts, [Marsileaceæ] the Mosses, [Musci] and the Lichens [Lichenes] of Louisiana, and on the Fresh Water and Land Shells of the State, accompanying the same with a few explanatory remarks. The report was on motion received and ordered to be retained among the archives of the Society.

The Recording Secretary was instructed to notify the chairmen of the standing committees (excepting the chairman on therapeutics and the chairman on diseases peculiar to negroes. both of whom had already signified that they had declined) that the Society was in session and desired their respective reports.

The *projet* to incorporate the Society and regulate the licensing of physicians in the state, which had been before a previous meeting, was then called up and read; and after some considerable discussion, the following resolution, offered by Dr. Copes and seconded by Dr. H. Smith, was put to the meeting and carried.

Resolved, That a committee of five be appointed, to whom shall be referred the whole subject of the *projet* of incorporation, license law, etc., as they concern the welfare of this Society, with instructions to report thereon at the earliest practicable moment, such report to be always in order.

The President appointed on that committee Doctors Copes, Picton, Hale, Smith and McGimsey.

The Society then on motion adjourned till the following day at 12 o'clock, to meet in the same place.

D. Macgibbon, M. D., *Rec. Sec'y.*

New Orleans, *March* 16, 1853.

The Society met this day at noon, in the Medical College, the President in the chair. The minutes of the previous meeting were read and approved. On motion, reading the roll of members was dispensed with.

The Board of Administrators reported favorably of the following applicants for membership in the Society, viz:

Doctors Lucien Hensley, Robert Hagan, Romaine Schlater, New Orleans.

Dr. James Gilpin, Shreveport.

Dr. S. C. Guy, East Baton Rouge.

Dr. George H. Walker, Washington.

The above gentlemen were then individually voted on, and declared to be duly elected members of the Society.

The Board further reported, that the application of Dr. Goodall, which was before them, lies over for consideration.

Dr. N. B Benedick, chairman of the committee on Midwifery, etc., according to previous arrangement, then read to the Society the report of said committee; after which it was on motion, received and ordered to be referred to the Board of Administrators.

Dr. Copes moved that Dr. Cartwright be invited to present to the Society a paper which he had prepared "On the influence of Climate, etc., on the Vegetable Kingdom," which was agreed to; and it was further agreed that the reading of said paper would be in order so soon as the reports of standing committees were presented.

The report "On Adulteration of Medicines," etc., was, on motion, made the order of the day at next meeting.

It was then, on motion, agreed to adjourn till 7 o'clock in the evening, to meet in the same place.

D. Macgibbon, M. D., *Rec. Sec'y.*

Evening Session.

The Society met this evening in the Medical College, the President in the chair. The minutes of the previous meeting were read and approved.

Dr. Browning, chairman of the committee "On Adulteration of Medicines," etc., read the report of said committee to the Society; after which, on motion of Dr. Picton, the report was received and referred to the Board of Administrators.

Dr. Cartwright read before the Society the paper above referred to;* when it was moved and agreed to that said paper be requested from its author to be placed at the disposal of the Board of Administrators.

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* This paper will appear in our July No. *Ed.*

Dr. Copes, chairman of the special committee to which was referred the subject of incorporating the Society, etc., then presented the following report and resolutions, which were on motion received.

The special committee to whom was referred the *projet* of a statutory law embracing incorporation for this Society, and a plan for licensing practitioners of Medicine and Surgery in Louisiana, together with all matters relating thereto, beg leave respectfully to report.

In their opinion, incorporation is both desirable and easy of attainment They see no necessity for an application to the Legislature, since by the General Law of Incorporation, enacted 30th April, 1847, the steps to obtain such incorporation for literary, scientific, charitable and religious bodies, are plain and certain, while the privileges are ample, and the attendant expense very small.

Your committee therefore recommend, that measures be taken to secure incorporation under the provisions of the above mentioned law.

They also recommend, that no attempt be made by this Society to procure any State legislation on the subject of license, satisfied as they are, that even if a wise and righteous law of this kind could be passed, it would at best remain a dead letter, and in the view of too many, be regarded as a reproach to regular medicine. As the best means to uphold the dignity, defend the rights, and promote the usefulness of the medical profession in Louisiana, your committee would recommend the employment of all proper measures to increase the membership of this Society, extending if possible into all parts of the State, but at the same time observing rigidly the rules now in use for the admission of members; and the granting certificates of membership to all who obtain this right.

All of which is respectfully submitted.

J. S. COPES,
J. W. P. McGIMSEY,
JOSIAH HALE,
J. M. W. PICTON,
H. SMITH.

Your committee therefore submit the following resolutions:

1. Resolved, That the Board of Administrators take such steps as may be deemed requisite to obtain incorporation under the provisions of the general act of incorporation for literary, scientific, charitable and religious bodies and associations, enacted 30th April, 1847, taking so much of the *projet* reported as relates directly to incorporation.

2d. Resolved, That the transactions of this annual meeting be published and distributed by the Administrators, so far as may be in their power, to every practitioner of good standing in the State.

3d. Resolved, That the Board of Administrators have prepared a suitable plate for certificates of membership in this Society. and that they issue such certificates, properly filled up and duly attested by the officers of the Society,

to the members thereof, upon payment of such an amount as will cover the pro rata expense attending it.

Dr. Browning moved, and it was carried, that the consideration of the fore going report and resolutions be deferred till next meeting of the Society, when they be made the order of the day.

It was agreed that the annual assessment on the members of the Society shall be five dollars for the current year.

It was then, on motion, agreed to adjourn till the following evening, at 7 o'clock, to meet in the same place.

D. MACGIBBON, M. D., *Rec. Sec'y.*

NEW ORLEANS, *March* 17, 1853.

The Society met this evening in the Medical College, the President in the chair. The minutes of the previous meeting were read and approved.

The application of Samuel Hyatt, Esq., licentiate of the Apothecaries Company, London, which was before the Board of Administrators and reported on favorably, was presented to the Society, when some discussion ensued as to the nature of the powers possessed by the above Company, and the title of those possessing a license from the same to admission in this Society as medical practitioners; and it was ultimately moved by Dr. H. Smith, and seconded by Dr. Axson, that the whole matter be laid on the table, which was carried.

Dr. Simonds requested leave to withdraw from the committee on the revision of the constitution and by-laws, which was not granted.

Dr. Fenner also made the same request, which was granted, and the name of Dr. Picton substituted.

The report of the committee on the license law, etc., presented at the previous meeting, was then called up and read to the meeting.

Dr. Picton moved to strike out in the third resolution all after "thereof," (referring to members paying for certificate of membership) which was agreed to; when the report and resolutions as thus amended were put to the meeting and carried.

Dr. Picton as chairman of the committee on the revision of the constitution and by-laws, presented a copy of the same as revised, which was read over to the meeting; when, on motion of Dr. Browning, the consideration of the constitution and by-laws was postponed till the next meeting, to be then made the order of the day; and the Recording Secretary was instructed to insert in two of the city papers a notice of the same, that the members might be duly apprised thereof.

It was then agreed to meet in the same place on the following day, at 12 o'clock, noon, till which time the society on motion adjourned.

D. MACGIBBON, M. D., *Rec. Sec'y.*

NEW ORLEANS, *March* 18, 1853.

The Society met this day at noon, in the Medical College, the President in the chair. The rough minutes of the previous meeting were read over to the meeting and approved.

The application of Dr. A. C. Robertson, and of Dr. Philip Yeizer, of New Orleans, for membership, which had been before the Board of Administrators, and reported on favorably, were acted on by the meeting, and both of the applicants declared duly elected members of the Society.

The revised Constitution and By-Laws then came up for action. The Constitution as read was submitted to the sense of the Society and declared to be unanimously adopted.

The By-Laws were next submitted in the same way, and after some slight alteration, were declared to be adopted by the Society. Both, according to the requirements of article eight of the Constitution, lie over for the action of the Society at its next annual session.

The special committee on the Treasurer's accounts, etc., presented the following report, which was on motion adopted:

The committee of the Louisiana State Medical Society appointed to examine the accounts of the late Treasurer, Mr. E. C. Bolton, beg leave to report, that they have examined these accounts and find them correct. Signed,

T. O. TOMPKINS,
HOWARD SMITH.

New Orleans, March 18, 1853.

The following resolution, offered by Dr. Crawcour, was then put and carried:

Resolved, That the memorial presented to the State Legislature last year, for the object and purpose of obtaining a law for the Registration of Births, Deaths and Marriages, be again presented and urged at the present session of our State Legislature by the Board of Administrators of the State Medical Society.

It was on motion agreed, that the Board of Administrators be empowered to strike from the roll of membership the name of any member who may, either personally or in writing, express a wish to withdraw from the Society.

The following resolution, offered by Dr. Picton, was adopted:

Resolved, That the Board of Administrators be directed to publish in the pamphlet containing the proceedings of this annual meeting a list of the officers and members, and as far as practicable, their places of residence or address.

Mr. E. C. Bolton offered the following resolution, which was adopted:

Resolved, That the thanks of this Society be tendered to the faculty of the Medical College of the University of Louisiana, for their renewed courtesy and cordiality in granting this Society the use of their Hall for the present annual session.

The following resolution, offered by Dr. Picton, was adopted:

Resolved, That the Corresponding Secretary be instructed to address by letter members of this Society from the country parishes, and urge upon them the necessity of speedy action in forming Country or District Medical Associations or Societies, auxiliary to the Louisiana State Medical Society, to be governed by a constitution and by-laws, to qe submitted to this body in annual meeting for approval.

Dr. Benedick offered the following resolution, which was carried:

Resolved, That the Board of Administrators appoint, and the President commission, the proper number of delegates to represent this Society at the next annual meeting of the "American Medical Association," to be held in the city of New York on the 3d day of May ensuing; and that so many of them as may be able to attend said meeting shall be required to present at the next annual meeting of this Society a written report of their mission.

Dr. Browning offered the following resolution, which was adopted:

Resolved, That the Board of Administrators be authorized to pay to the Janitor of the Medical College such compensation for his services, rendered during the present session of this Society, as they may deem just.

After tendering a vote of thanks to the officers of the last year, and agreeing to hold the next annual session in this city, the Society on motion adjourned.

(Signed)

E. D. FENNER, M. D., *President.*

D. MACGIBBON, M. D., *Recording Secretary.*

The President appoints the following Gentlemen Chairmen of the standing Committees and it is hoped they will faithfully discharge the duties assigned them:

1. On Medical Education, Dr. A. W. Ely.
2. On Anatomy, Surgery and Surgical Anatomy, Dr. Crawcour.
3. On Physiology and Pathology, Dr. A. F. Axson.
4. On Midwifery and Diseases of Woman and Children, Dr. Benedick.
5. On Practical Medicine, Dr. McKelvey.
6. On General Therapeutics, Materia Medica and Pharmacy, Dr. Copes.
7. On Meteorology and Hygiene of the State and its Vital Statistics, Dr. Barton.
8. On Diseases Peculiar to Negroes and to a Southern Climate, Dr. McGimsey.
9. On Adulteration of Medicines and the sale of Drugs and Nostrums, Mr. E. C. Bolton.
10. On the Medical Botany of the State, Dr. J. Hale.

II.—*Collodion in the treatment of Buboes.*

The March number for 1843 of the *Stethoscope*, contains some practical observations by Dr. Herbert Claiborne, of Petersburg, on the value of collodion in the treatment of buboes. He says:

"I use the cullodion solely for the purpose of discussing or scattering the bubo, and in my hand it has proved incomparably superior to any other discutient. It operates by pressure, I believe, and thereby lessening the capillary congestion of the parts, and stimulating the absorbents to remove whatever products may have been thrown out by inflammation about or in the affected glands.

I have used it in the treatment of buboes of the groin only. When a patient with a bubo presents himself, if there be not much acute local inflammation, no matter how formed, and no constitutional reaction, I immediately shave off the capilli from and around the tumor, and with a camel's hair pencil apply the collodion upon the place allowing one layer to dry before the application of another, until I form a scab or membrane of such thickness as I think will exert the proper compression. Sometimes the application has to be renewed in the course of twenty-four or forty-eight hours. If put on too thickly it will give a great deal of pain; and I have seen it contract so tightly upon the tumor, that the epidermis would be split in fissures around the borders of the application. This will serve to give some idea of the force of the compression which it will exert. After the application of the collodion, it is better that the patient remain quiet for a day or two, take an aperient, and restrict his diet, though I have succeeded in discussing a chronic bubo when not an hour has been lost from his usual avocations.

If there be much inflammation about the tumnr, I usually endeavor to subdue this by general and local depletion, saturnine applications, etc., before applying the collodion; and if the bubo be of venereal origin, I institute of course the specific treatment for the existing disease."

We have succeeded in discussing indolent stationary buboes, after all other means had failed, by the application of an ordinary truss, perfectly adapted to the enlarged gland. The largest buboes, if not too tender, may be made to yield to mechanical pressure, constantly kept up for six or eight days. We have never used the collodion for the particular affection above indicated; but we have applied it to other indolent swellings and inflamed points with good results. We have no doubt of its superior efficacy in the discussion and resolution of chronic buboes. Let the profession give it a trial.

(*Ed. N. O. Med. and Surg. Jour.*)

III.—*A four-pronged fork swallowed, and subsequently extracted from the thigh.* [Translated and abridged from the Rev. de Thérap. Med. Chir., Fevrier 1853,]

(*By Ed. N. O. Med. and Sur. Jour.*)

Good,in his "Study of Medicine," makes mention of individuals who, prompted by a depraved, a morbid appetite, swallowed old nails, knives, files, etc., which were found after death in the stomachs of those subjects; yet the present case, taken from a late French journal, and fully authenticated, deserves to be recorded as both *unique* and singular in all its details. We regret that our space restricts us to a mere abstract of this interesting history.

To begin, then. The subject was a female called Catharine, æt. 57, the wife of a retired officer, dwelling in the commune of Haute Saone, of a robust constitution, of a nervo-bilious temperament; the mother of two healthy children.

At the age of about 35 years her menses ceased, when she manifested strong symptoms of suicidal monomania. She made several ineffectual efforts to destroy herself; but in this she was defeated. Finally, she attempted to swallow an iron fork; but this was extracted by the family physician, M. Le Tellier, who reports the case, aftor some considerable effort. Several years subsequent to this strange freak, Madame C. again attempted to thrust a fork down the throat; but the physician being called, again succeeded in extracting it, to the great satisfaction of the patient. Eight months after this experiment, without any pains in the stomach and bowels, without any derangement of the digestive functions, Madame C. began to complain of intense pain in the left hip and thigh—pains which destroyed her rest and made it difficult to walk. Her medical attendant, seeing nothing externally, deemed hers a case of sciatic neuralgia. For four years Dr. Le Tellier heard nothing of his patient, when he was again summoned to her assistance. This was in 1852. He found the pains in the thigh intense; for two years she had remained in bed, unable to move herself; her pulse was small and feeble, scarcely perceptible; no appetite; extreme emaciation; little sleep; lower limbs infiltrated; colliquative discharges; with nocturnal fevers. On the superior and external part of the left thigh, considerable tumefaction existed, painful on pressure, particularly near the trochanter. Here the integuments were somewhat discolored. Emollient cataplasms were ordered to the painful spot, and Peruvian bark given internally to support the strength.

Madame C., who had now fully recovered her intellectual faculties, informed her medical attendant that all medication was useless; for, said she, "it is a fork in my thigh, and I shall continue to suffer until it is removed." The poultices were continued for one month, when the painful spot spontaneously opened, about four fingers beneath the trochanter major, and discharged a quantity of pus.

By probing and manipulations, her medical attendant discovered an iron fork, and with a pair of forceps, extracted it at once. This then settled the question, and put all doubt to rest; Madame C. had actually swallowed a fork. She

then detailed all the particulars; that on the second day after the 2d fork had been removed from her throat, she succeeded in swallowing the one which had just been removed from her thigh; that it had four prongs; that it caused no pain nor uneasiness either in her stomach or bowels.

A sketch is here given of the fork before it entered the stomach, and also of as much of it as remained after its extraction. The handle, as well as one of the prongs was nearly destroyed by oxidation; but in other respects it was well preserved. She continued to sink, and on the eighth day after the extraction of the fork, Mrs. C. perished.

A thorough autopsy, so much desired, was refused; the parts however, from which the fork was taken, were laid open, and a number of purulent abscesses, mostly empty, were revealed around and below the trochanter major. Mr. Le Tellier, to whom, as already related, we are indebted for the facts of the foregoing case, makes the following reflections on this extraordinary case.

In the first place, says he, is it not extraordinary that a foreign body, of the nature of the one under notice, should sojourn for nine months in the digestive organs, without determining serious accidents, and without any disturbance of the economy, until by an admirable effort of nature, it makes its way down to the thigh, where it begins to excite pain, which persists for three years. How long, it may be asked, did the fork remain in the stomach? Was it during its sojourn in this organ, under the solvent action of the gastric juice, that a portion of it was broken down? After it escaped through the pylorus, is it probable that it perforated the small intestine at some one point, or did it traverse the entire alimentary tract, leap over the ilio-scœcal valve, and pierce the descending colon? Once out of the intestine, what course could it have taken to have lodged behind and near the trochanter major? What became of the handle of the instrument? Did it remain in the system; or rather, may we not suppose that by oxidation it was so reduced in size as to make its escape per anum?

Many of these questions might have been definitively settled, had it been possible to make a searching post-mortem examination. Altogether, the case is without a parallel in modern surgery.

To our excellent friend, Dr. C. Delery of this city, we are indebted for the journal, from which we obtained the particulars of the above case.

IV.—*Treatment of Pneumonia by inhalation of Chloroform.*

Some of the most distinguished practitioners of Europe, of whom Dr. R. B. Todd is one, begin to cast some doubts upon the depletive plan of treating pneumonia in its incoative stages. They argue that the lancet, cups, and even tartar emetic, may generally be dispened with in a great number of cases—for all of which Dr. Todd substitutes *stupes* of warm turpentine to the chest, and the internal administration of the acetate or citrate of ammonia, with an occasional mild purge.

Vearrentrapp of Frankfort has written on this subject, and recommends the inhalation of Chloroform in the treatment of pneumonia. He gave it in quantities too small to produce insensibility; and the effect in every case was a free perspiration, and a great reduction in the frequency of the pulse. He is hence highly pleased with this plan of treatment.

Does Chloroform in such cases cure the pneumonia, by acting directly on the blood, passing through the lungs?

[*Condensed from Braithwait—Ed. N. O. Med. Jour.*]

V.—*Cauterization in Croup.*

A violent case of croup, reported by Dr. English in the Philadelphia Medical and Surgical Journal for March, 1853, was relieved, after the usual active measures had failed, by the direct application of a strong solution of the nitrate of silver (60 grains to the ounce) to the larynx. The application, says Dr. E., which was deep and thorough, and made while the little patient was crying—was followed by a copious expectoration of mucus, mixed with the false membrane, of which an enormous amount was discharged. On the second day, two applications were made; and on the third, but one; after which the boy rapidly recovered.

(*Ed. N. O. Med. Journal.*)

VI.—*Treatment of Acute Rheumatism.*

BY DR. MAXSON.

As acute rheumatism is a disease, the pathology of which has been a matter of doubt, and the treatment consequently various, I here offer a plan of treatment which I have found very satisfactory.

In a severe case, in which the inflammatory fever runs high, if the arms are suffering, I draw from two to four ounces of blood, by cups, from each side of the spine, near the origin of the brachial nerves, between the shoulders. If the lower limbs are suffering, I draw the same quantity, by cups, from each side of the spine, in the lumbar region, near the origin of the crural nerves. This generally relieves the pain in the limbs immediately, and checks the progress of the disease. I procure an evacuation of the bowels by mag. sulph ℥ ss, repeated, if necessary, and then give potassa nit. ℈ i, dissolved in a teacup full of warm gruel, every three hours, and continue this till the fever and inflammatory symptoms subside, which will generally occur in from four to six days.

At this stage there is generally left slight swelling and some stiffness of the joints. I then discontinue the nitrate and give potassa iodide, gr. x, with vin. colch. gtt. xx, every six hours. Continue this till the slight swelling and stiffness of the joints subside, which may take place in from four to six days; the appetite will, in the meantime, generally become good; the patient then need only be directed to take potassa iodide, grs. v, three times per day, for a few days more, to prevent a relapse and render the cure permanent.

(*Buffalo Monthly Medical Journal.*)

VII.—*Danger of Gutta Percha Catheters.*

BY W. W. MORGAN.

Mr. Morgan, writing from Newport, Monmouthshire, (England) to the editor of the London Lancet, says:

Singular enough, on the day I received your last number, a patient came to my surgery, having the broken end of a gutta-percha catheter remaining in the urethra. I enclose you the distal end for ocular proof. The catheter broke while my patient was either in the act of getting out of bed, with the object of drawing off the urine into the chamber utensil, or stooping to raise it up—he cannot tell which; but he felt considerable dismay on bringing out only about one half of the instrument, the other half remaining firmly grasped by the stricture. He had used it for the last year and a half, and never discovered the slightest crack, nor want of flexibility in its structure.

Another writer (F. Negus, R. N.) writing to the same periodical on this subject, says:

I enclose some fragments of a gutta-percha catheter, which has lain for about three years, unused, in my instrument case, during a sojourn on the coast of Africa. The instruments have been preserved quite bright, without the use of any oily preparation; but some molecular change has taken place in the catheter, so that it has become extremely brittle, and, on my attempting to withdraw the stilet, has instantly split across in a dozen places. I need not dwell upon the fearful consequences which must ensue, if an instrument such as this had been passed into the bladder for the purpose of drawing off its secretion.

I am not aware if such a change as I have just described has been noticed in gutta-percha; if it has not, you will oblige me by noticing the fact in your journal.

In reference to the foregoing, the editor remarks—"The portion of catheter forwarded to us is remarkably brittle."

VIII.—*Spasm of the Æsophagus cured by Strychnine.*

Spasm of the œsophagus is frequently associated with hysteria or hypochondria, and is often so obstinate as to interfere seriously with alimentation. This grave affection has been completely relieved by the administration of strychnine, in doses of one and two centigrammes. M. Mathieu relieved by this medicine a female who had suffered for six months with spasms of the œsophagus; they were so severe as to cause the instant and violent rejection of all solid food, the moment any attempt was made to swallow. The strychnine was not given until all other antispasmodics had failed and been abandoned.

(*Revue Ther. Med. Chir.* 1853.

IX.—*Iodide of Sodium as a remedy for Constitutional Syphilis.*

In one hundred and fourteen subjects affected with syphilis, in its various stages, Dr. P. Gamberini, of the Bologna Hospital, tested the iodide of sodium, and found it preferable to the iodide of potassium in this form of syphilis. The former was less likely to disturb the stomach, did not produce any eruption, and had no bad effects upon the mouth. M. G. asserts that he has seen many cases of secondary syphilis stationary under the prolonged use of the iodide of potassium, promptly give way to the iodide of sodium. M. Gamberini thus concludes:

1st. Soda having a strong affinity for our organism, where this calculi abounds, should, *a priori*, be considered as more readily assimilated than potash.

2d. The iodide of sodium is less disagreeable to the taste, and therefore more readily taken by patients.

3d. The iodide of sodium has succeeded in cases where the iodide of potassium has failed.

The patient may begin with about one scruple daily, in three ounces of distilled water, increasing the dose six grains daily, until 2 *gros*, or 8 grammes, are taken.

4th. The iodide of sodium is a better substitute for mercury.

[*Journal des Connais. Medico-Chirurg.*

X—*Dr. Paul J. Eve.*

We read with gratification your attempt, in a late number of your Journal, to perpetuate the names of our talented medical men while living. The enterprise, if pursued, must place your Journal upon a high round in the scroll of fame, and command for yourself the gratitude of your brethren in perpetuity; for the memories of our able men in the profession, to our disgrace be it told, is a blank page in American medicine. The divine, statesman, chieftain, merchant, poet, sculptor and painter, have their talents and virtues recorded in life by their admiring sects; but he who stands by the dying couch of them all, and administers to their wants under the most trying and abused circumstances —the physician—is permitted to drag along through life, best as he can, amid toil and poverty, however brilliant his talents, unknown and unsung.

This is a piece of ungrateful injustice, at which our heart sickens and our feelings revolt. The medical profession is as talented, worthy and reputable as any class of men in America; among them are some of the brightest luminaries which adorn this nation; yet they will never be known, because their brethren have not magnanimity enough to record their merits. All this is wrong; men professing to secure respect must regard themselves; and if the medical profession wishes to take its stand in society, it must place its rising and talented men prominently before the country, and demand for them the first rank; we have just entered into the brotherhood; the "honey moon" of our diplomate has not passed, but we have begun with a resolve to elevate our profession and tell the virtues of our Southern fathers in medicine; we have begun with the gentleman whose name heads this article, and we shall continue the subject with others at our leisure, feeling assured we could not offer a better boon to Northern men.

The first man on our list is Doctor Paul F. Eve. Doctor Eve is a Georgian, and descended from a most reputable ancestry; he is a stout, hale and fine looking man in physical appearance; he is a perfect gentleman, warm in his attachments and sincere in his feelings; from his want of modern duplicity, the pedantic and presumptuous never like him privately, but he is a favorite with the high-toned, manly and honorable. Doctor Eve graduated, we think, in the University of Pennsylvania, thence he went to Europe and became involved in the Polish revolution; there he saw much surgery, and is evidently one of the best military surgeons in America; so well convinced were his friends of that fact, that the late President Polk tendered him a surgeon's commission while our army was marching upon Mexico. Doctor Eve held for many years the chair of surgery in the Medical College of Georgia. In consequence of family afflictions he resigned, and subsequently accepted the same chair in Louisville, Kentucky; the same reasons caused his resignation, but after a long expected and painful event, the demise of his wife, he was induced to accept the surgical chair at Nashville, Tennessee, where his name and influence have crowned that school with remarkable success, and will make it a focal point for the South and West in medical education.

As a surgeon, Doctor Eve has no superior; he is, and deservedly too, the head and front of Southern surgery, and has a better surgical practice than any man in the South. As an operator, he is bold, safe and dexterous. As a teacher of surgery, he has few equals; he is plain, practical and concise in his lectures, using no ostentation, but placing his subject, in a clear and distinct tone of voice, clearly before his class; he deals in no idle specialities in delineating his subject, but confines himself to facts and truths, instead of vague antithesis and conjectural conclusions.

As a surgical writer he is clear and pointed, and it is to be hoped he will furnish his Southern brethren a complete work upon Southern Surgery, the result of his long and honored experience.

The name of Doctor Eve may be almost linked with the Nestorship of Southern surgery; he has done more for the science South than any man in the profession, and like other men, he has had a tortuous race to run; it is curious that our ablest men have the bitterest enemies; it is said that the celebrated Brodie is the most hated of any man in London, and no one doubts his surgical prowess; we believe to be a talented man in medicine, is to secure enemies; there is no use in hating and misrepresenting an ordinary man; it brings no credit upen the slanderer; we wish it were otherwise, but it is an actual fact that medical men have more bickerings than all others. These remarks are general, and apply to no particular case, for Doctor Eve, like all other great men, has outlived all his assailants, and can bid any man defiance, for his reputation and fame place him beyond the reach of successful calumny. Surgery with Professor Eve is a speciality; he is devotedly fond of it; he is a loving man, a man of science, a real specimen of a real surgeon, who will command respect anywhere.

[*Philadelphia Medical and Surgical Journal.*

XI—*Fifty Dollar Prize for the best Essay on some Medical Subject.*

We invite the special attention of the medical profession of our sister State, Alabama, to the card below, offering a Prize of $50 for the best original Essay on some medical subject, to be chosen by the author, and submitted to the adjudication of the Alabama State Medical Association.

The amount, though handsome enough, is not designed as a just reward, but rather intended to develop and encourage the medical *talent* of the State; and we have no doubt that he who may obtain the prize, must produce an Essay of uncommon merit.

Medical Journals circulating in Alabama will promote the cause of science by giving the subjoined an insertion.

(*Ed. N. O. Med. Jour.*)

PRIZE.

Whereas, the Prize Essayist at the last meeting of the Alabama State Medical Associatian (L. H. Anderson, M. D.) has presented Fifty Dollars "to be offered to the medical profession of Alabama for the best original practical Essay upon some (or any) subject of medical science, to be read at our next stated meeting," at Montgomery, 2d Monday in December, 1853: Therefore, candidates for the prize will deliver their Essays to the first Recording Secretary in Mobile, on or before the first of October next, accompanied with the usual sealed note, containing the author's name.

A. DENNY, Pres. A. S. M. A.

R. MILLER, 1st Recording Sec'y.

March 27, 1852.

XII—*To the Medical Profession of Alabama.*

The undersigned having again received the appointment of "Reporter on Surgery" for the Alabama State Medical Association, takes this method of renewing the request made last year to the practitioners of the State, that they will transmit to him, before first December next, the notes of such surgical practice as they may have had for twelve months preceding 1st November, 1853, to be laid before the Association at its next meeting.

Members of the Association who intend to be at the meeting, can bring their reports in person. Those who cannot be present, and physicians who are not members, may at their option send them by some attending member, or forward them by mail to the subscriber, before the date above named.

L. H. ANDERSON,

Sumpterville, Ala.

The New-Orleans Medical and Surgical Journal.

Vol. IX.] NEW-ORLEANS, MAY 1, 1853. [No. 6.

HEALTH, MORTALITY, &c.

Since our last issue our city has been blessed with extraordinary health, as will appear from the bills of mortality, which show a falling off of about 50 per cent. Indeed we have not had so small a mortality for five years past, or at least since epidemic cholera broke out here in December, 1848. It is a singular coincidence, that this pestilence at its last visitation should have prevailed just about the same length of time as at its first, i. e., between three and four years. Then it broke out in October, 1832, and did not disappear till the beginning of 1836. Latterly it commenced in December, 1848, and prevailed more or less till the present time, when it may be said to be extinct. A just comparison of the mortality caused by the two epidemics would form an interesting article, but we are not sure that the necessary statistics are accessible.

Our late mortality from *Fevers* has been uncommonly small; chiefly attributable, perhaps, to the fact that very little *Ship Fever* has been brought in by the emigrants from Europe. It is hoped that the dreadful mortality that for some years past has attended these poor unfortunate wanderers from their native land, has awakened a benevolent interest in their behalf, and caused those who undertake the important duty of providing conveyance, to pay more attention to the laws of *hygiene*. Most of the immigrants who arrived at this point during the past winter and spring were in very good condition.

The spring has been very backward—the weather for the most part cool and dry. So late as the 27th of March fires were found quite necessary to comfort. Our Meteorological Table will give a more correct account of the general aspect of the weather. It is somewhat extraordinary that up to this moment, 16th April, but few musquitoes have been seen. We generally have myriads of these troublesome insects by this time of the year. The relation that this fact may bear to the state of health both now and hereafter will be worthy of notice, as the elements that enter into their generation may be intimately connected with *morbific causes*.

Since the consolidation of the three Municipalities and Lafayette into *one city*, which took place last year, a very marked impulse has been given to the progress of improvement—a vast number of new buildings are going up, and pavements of stone and plank are rapidly extending in all directions. These improvements cannot fail to have a beneficial effect upon the sanatory condition of the city, and in so far, add greatly to its general prosperity. There is still *one thing needful*, and that is a plentiful supply of water for the purpose of cleansing the gutters. When we attain this indispensable means of preventing disease, we may hope to see our annual bill of mortality compare more favora-

bly with those of other cities than it does now. If our respected Mayor and every member of our City Councils were to read the annual Reports of the General Board of Health of England, gotten up under the authority of law, they would see how plainly the *causes of disease* are demonstrated, the best means of removing them, and the vast number of people who die of *preventible* diseases. This learned Board has recently sanctioned the bold opinion uttered by our great countryman, Dr. Rush, who maintained that *city authorities were justly chargeable with the lives of all who die of preventible diseases within their jurisdiction, and that they should be made responsible for the same before the Courts of Justice.* How many of our honorable councilmen have ever considered the subject in this view! Yet there is both reason and justice in it. We, the people, have entrusted them with the entire guardianship of the city, involving our rights, property and lives; and it matters but little to one of us who is about to sink into an untimely grave, whether we fall by the hand of an unlawful assassin, or a well known cause of fatal disease that *might* and *ought to have been removed.* We trust that ere long these things will be considered in their proper light by those who are vested with authority.

The customary diseases of the season, such as scarlatina, measles, pneumonia, catarrh, bowel complaints, etc., have prevailed to a moderate extent. The usual spring rise of the river has appeared, but to a moderate extent. We continue our weekly reports of mortality as follows:

DEATHS IN THE CITY OF NEW ORLEANS,

For the 8 *weeks ending April* 16*th*, 1853.

	Cholera.	*Fevers.*	*Total.*
1853 Feb. 26th,		12	103
March 5th,	1	13	101
" 12th,	1	5	105
" 19th,	1	13	101
" 26th,	0	11	107
April 2d,	0	17	104
" 9th, C. Inf.	1	12	117
" 16th,	1	15	130
Total,	5	98	868

END OF THE VOLUME.

This closes volume 9th of the "*New Orleans Medical and Surgical Journal*," and with our next *July* number, we shall enter upon the *tenth* year and 10th volume of the Journal with a list of subscribers, of which few medical journals on this side the Atlantic can boast. Our course from this time forward, judging from the evidence before us, shall be upward and onward, if the friends and patrons of the Journal continue, as heretoforee, to extend that "*aid* and *comfort*" to us, so necessary to an enterprise requiring at once heavy expenditures, some tact, a vast amount of patience, and ceaseless toil. With such assurances from our friends, we can well afford to be merciful and forgiving to our enemies, (if any we have) and just and liberal to the profession. Our position as director and editor of the Journal, is one often of great delicacy and embarrassment; and if we fail in such an emergency to acquit ourselves with fidelity and impartiality to particular individuals, let it be remembered, in extenuation, that we seek rather to promote the honor and interest of the profession, than to conciliate and cajole exacting cliques or unscrupulous individuals.

In thus defining our position and foreshadowing our future course, we aim not to provoke any unkind feelings, or bring back the recollection of wrongs, which sprang rather from over much zeal in the *cause*, than a due regard for the peace, harmony and prosperity of the profession.

With our *July* issue we shall enlarge our edition, that those who may order the work during the current year, may, if expressed, receive the Journal from the beginning of the publication year.

As the next number will begin a new volume, persons wanting the work, should forward their names as early as practicable, that we may be prepared to furnish them a full set of the volume. A full Index will be found at the end of the number.

CAUTERIZING THE LARYNX AND TRACHEA.

This operation, which was first performed and recommended to the profession eight or ten years ago, by Doctor Horace Green of New York, the practicability of which was denied by the physicians of that city at the time, and, as we learn, is really doubted at this day by some of the eminent surgeons of Philadelphia, is actually performed with much greater facility and less distress than we could have imagined before witnessing it. A short time since we saw it done in this city by Doctor J. H. Douglas, a pupil of Dr. Green, in the presence of Professor Stone, Dr. Banks of Mississippi, and several other intelligent physicians.

The patient was a gentleman who had long suffered from ulceration of the larynx and trachea, extending down to the bronchial bifurcation. With a curved spatula the root of the tongue was pressed down till the epiglottis was

plainly visible. A long probang, moistened with a solution of Chryst. Nitrate of Silver, (℈ ii to the ℥ i) was then readily passed through the rima and down the trachea to its bifurcation. To our astonishment, the distress occasioned by the operation was quite insignificant; not greater than we often see caused by the same application to the posterior fauces. This patient had submitted to the operation repeatedly and with apparent benefit.

Affections of the throat are so common in this region, that it behooves us to learn the latest improvements in their treatment, among which that recommended by Dr. Green certainly occupies the first rank. E. D. F.

MEDICAL ASSOCIATION OF THE STATE OF ALABAMA.

The proceedings of this Association at its last meeting, held in Selma, December, 1852, have reached us too late to command the extended notice they so richly merit. Our Southern pride is highly gratified at the substantial evidences of talent and industry among our professional brethren in Alabama, as presented in these proceedings. They make a pamphlet of 166 pages, and are replete with most interesting original matter, which does credit both to the profession and the State. We shall notice them more fully in our next issue.

All honor to Alabama! She has neither a medical college nor a medical journal, but her students are educated at the best schools of the country, and her physicians enrich the pages of the medical journals both North and South. We hope soon to see an honorable emulation spring up among all the State Medical Associations of the Union. *Palmam ferat qui meruit!*

IODIDE OF POTASH IN THORACIC DISEASE.

In looking over the journals, we observe a general feeling among some of the first practitioners of the day, to condemn the usual mode of treating acute diseases of the lungs and their appendages, with depletion, nauseating medicines and blisters. We are not prepared to proscribe the judicious employment of these powerful means; although we feel satisfied that much mischief has resulted to the public by their indiscriminate and untimely adoption. But whatever plan of treatment may be enforced in the early—in the acute stage of both Pneumonia and Bronchitis, we have been led, from considerable experience, in the management of these usually obstinate affections, to give the preference to the *iodide of potash*, in the later stages of the disease; when the

expectoration is scant, and when the secretions from the bronchial mucous membranes are in a measure arrested, attended with slight febrile excitement, loss of appetite, and general debility, we have derived the greatest benefit from small and oft-repeated doses of this medicine. From its known specific effects upon the secreting organs, and its aptitude for the nasal and bronchial mucous membranes, we might, *a priori*, expect good to attend its administration in diseases of these extensive surfaces. Such has, in fact, been found to be the case when given at the proper time, neither too early nor too late, in Pneumonia and Bronchitis.

Under the influence of the iodide of potash, the expectoration is moderated if too profuse, and increased to a moderate extent if too scant; hence the pulse becomes improved, the appetite increases, which may have been destroyed in the early stages of the disease by the antimony and ipecac usually so freely thrust down the throat of such patients. Try this medicine therefore, at that stage of Bronchitis and Broncho-pneumonia when these affections have ceased to be acute, and yet have not run into the chronic stage.

CONSUMPTION IN THE SOUTH.

It has become a popular error, both in and out of the profession, to suppose that Consumption is developed almost exclusively in Northern latitudes—the disease being of rare occurrence in Southern regions. Observation and a little attention to facts will, we feel convinced, correct this, to some extent, fatal error. It is conceded by all parties that sudden vicissitudes of temperature—from extreme heat to excessive chilliness, and vice versa, often lay the foundation for severe and fatal pulmonary diseases. Admitting this fact, we must at once concede, that these sudden atmospheric changes are much more frequent and sudden in the South than in the Northern parts of the United States. Nor are the residents of the North by any means as easily affected by such changes owing to the fact that they are much less amenable to the attacks of disease than the relaxed and effeminate inhabitants of more Southern latitudes.

If one of the first and most obvious effects of great heat is to debilitate the entire system; and if the maxim be true, that as we debilitate the system, we in the same ratio predispose it to take on disease, we have at once an easy and ready solution of the question before us.

Statistics, if carefully interrogated, will go far to place this subject in its true light before the profession and the public; and it becomes us of the South to meet it at once, examine it, and publish the facts to the world.

Look at our weekly bills of mortality! Are not nearly *one fifth* of these

put down as caused by Phthisis Pulmonalis? Most of whom are old residents of the city, or natives of the place.

At a future day we shall investigate this subject, and lay the result before our readers. We now simply allude to the question.

LOUISIANA STATE MEDICAL SOCIETY.

We invite the attention of our readers to the Proceedings of the Louisiana State Medical Society, in another part of this number. We trust this Society will meet with the approbation and receive the encouragement of every Physician in our great and prosperous State.

This Society, now fully organized under the Presidency of our amiable and energetic friend, Dr. E. D. Fenner, will from this day forward take a commanding position among similar associations of the country, and exercise a salutary influence over the public mind.

The Address of the former President, Dr. Picton, too long to be admitted into the Journal, will be found in the pamphlet form of the printed proceedings. It should be read by every Physician in the State. The high reputation of the author of this address, for learning and scientific knowledge, will impart a moral force to the production, which must tend to elevate the ethics and dignity of the profession throughout Louisiana. Dr. P., for some time connected with the medical staff of the regular army, has been an active and successful practitioner of medicine in New Orleans for nearly a quarter of a century; and he therefore speaks the words of soberness and truth, touching the interest and welfare of the profession.

TRISMUS NASCENTIUM—PUS IN THE UMBILICAL VESSELS.

Some time in the month of May, 1851, a young and healthy woman was delivered of a fine looking male child, at the full term of utero-gestation, without any untoward accident.

On the fourth day after the birth of the child, it was seized with trismus nascentium and expired in 24 hours. On examination, no displacement of the cranial bones was discovered; but the umbilical vessels were found blocked up with *purulent fluid.* All the organs, including the brain, were apparently quite sound.

In the *Edinburgh Medical and Surgical Journal*, for August, 1850, Doctor Imlach reports a similar case; he however did not examine the cranium, nor the spinal column. In the case published by Dr. I., the umbilical vein was blocked up with a coagulum of blood, and the skin about the umbilicus was gangrenous! Was all this accidental—or was it the exciting cause of the

trismus ? Was death caused by the introduction of this purulent fluid into the circulation ?

Since recording the foregoing notes, we have tried the effects of chloroform in a violent case of trismus, and found it controlled the spasms, and at least prolonged life much beyond any other remedy we have seen tried. The little patient, but a few days old, and well developed, when first seen by us, had been afflicted with trismus for some 36 hours, and was now evidently on the point of expiring. We carefully administered chloroform, and watched its effects. In a few minutes after the inhalation of the anæsthetic, the body, which had been perfectly rigid, the jaws clenched, the face corrugated, became gradually relaxed—the fingers flaccid, the face smooth, the countenance calm, the breathing easy and natural, and the little thing slumbered. As the spasms recurred, the chloroform was renewed, and gradually the intervals between them lengthened, and finally ceased altogether. It was now late at night, and the nurse, regarding the child as saved, slept at her post; and during this time the spasms returned, the chloroform was not renewed, and at the dawn of day the child expired.

We are inclined to believe, that had the child been diligently watched, and the chloroform renewed, the case might have terminated differently.

PATIENT HIS OWN SURGEON—AMPUTATION OF PENIS IN A FIT OF DELIRIUM TREMENS.

A stout German, aged about 45 years, of good general health, but of rather intemperate habits, had, during the month of April, 1852, an attack of mania a potu, and whilst alone in his room, and fancying that his enemies were pursuing him to deprive him of his genital organs, seized a sharp knife, amputated his penis close up to the pubis, and threw the organ violently at those whom he fancied were in pursuit of him. The hemorrhage was considerable, but no vessels were *tied*—the bleeding gradually ceasing spontaneously, by the formation of a coagulum over the mouth of the divided vessels. About this time he was brought to the hospital, where he made an attempt to cut his throat. Simple dressings were ordered; the patient gradually recovered of the delirium, the penis healed rapidly, and we saw him on the morning of the 22d of May, when the wound had quite healed, and he was rational and apparently content with his extraordinary *surgical* feat.

This case is particularly interesting on account of the cessation of the hemorrhage without any surgical aid. We believe it is taught in the books that the vessels distributed to this organ always require the use of the ligature

or torsion, when divided with a keen bladed instrument; here, however, the case was not brought to the notice of the surgeon for several hours after the violence had been committed—when all hemorrhage had entirely ceased.

The notice of such facts may have an important bearing upon surgical practice.

THE PHYSICO MEDICAL SOCIETY AND DR. FARRELL.

NEW ORLEANS, April 16, 1853.

Dr. J. Farrell.

DEAR SIR—At a regular meeting of the New Orleans Physico-Medical Society, the following resolutions, which I have the honor of transmitting to you, were this day adopted unanimously.

With feelings of lasting respect,
I remain, yours,
D. MACGIBBON, M. D., Rec. Sec'y.

Whereas, it having come to the knowledge of this Society, that one of our veteran associates, Dr. Farrell, a Vice President of this Society, is on the eve of absenting himself for some years, with the view of residing in Edinburgh for the improvement of his health:

Be it Resolved, That Dr. Farrell bears with him our respect and esteem—that although his temporary absence will be felt by this Society, of which he has ever been an active member—yet we trust his usefulness will not be lost, and that he will meet with the appreciation which he merits as a man, and as a Physician, of high tone.

Resolved, That a copy of the foregoing, authenticated by the signature of the President and Recording Secretary, be furnished Dr. Farrell.

UNIVERSITY OF LOUISIANA—MEDICAL DEPARTMENT.

At the commencement of this institution, held March 17, 1853, the degree of *Doctor in Medicine* was conferred upon *seventy* young gentlemen. Two were graduated in Pharmacy.

To the graduating class, and in the presence of a large number of spectators Prof. T. Hunt, Dean of the Faculty, delivered an eloquent, appropriate and impressive address.

E. G. Rawlings, who had been chosen by the class, pronounced quite a handsome, and classical valedictory, in reply to Prof. Hunt's remarks. The occasion was one of great interest to all who participated in and witnessed the proceedings.

HONORS TO DR. BENNET DOWLER.

The Royal Society of Northern Antiquarians, at Copenhagen, has elected our distinguished fellow-citizen, Dr. Bennet Dowler, a Fellow—a high and well deserved compliment to science and learning.

ABSTRACT OF A METEOROLOGICAL JOURNAL FOR 1853.

BY D. T. LILLIE & Co., at the City of New Orleans.

Latitude, 29 deg. 57 min.; Longitude, 90 deg. 07 min. West of Greenwich.

WEEKLY — 1853.	THERMOMETER.			BAROMETER.			COURSE OF THE WIND.	FORCE OF THE WIND, Ratio 1 to 10.	Number of Rainy Days.	Quantity of RAIN — Inches.
	Max.	Min.	Range.	Max.	Min.	Range.				
March 3	76.0	47.0	29 0	30.30	30.05	0.25	SE.	3 21	0	0.000
" 10	76.0	49.0	27 0.	30.30	30.00	0.30	E.	3.00	3	2.410
" 17	80.5	43.0	37.5	30.30	29.90	0.40	N.	2.30	4	1.555
" 24	74.0	52.0	22.0	30.22	29.82	0.40	W.	2.80	3	3 055
" 31	78 0	52.0	26.0	30.20	29.93	0.27	S.	3 03	1	1.055
April 7	81.0	57.0	24.0	30.25	30.00	0.25	NW.	3..57	1	0.085
" 14	83.0	63.0	20.0	30.23	30.05	0.18	S.	1.14	2	0.015
" 21	86.0	60.0	26.0	30.25	29.99	0.26	W.	2.86	1	1.245

The Thermometer used for these observations is a self-registering one, placed in a fair exposure. Regular hours of observation: 8 A. M., 2 P. M., and 8 P. M.

REPORT OF THE CHARITY HOSPITAL, (NEW-ORLEANS,)

For February and March, 1853.

	SEX.	FEB.		MARCH.	
ADMISSIONS -	Males	757		683	
Do. - -	Females	171		289	
			928		972
DISCHARGES -	Males	712		668	
Do. - -	Females	186		229	
			898		897
DEATHS - -	Males	66		63	
Do. - -	Females	31		23	
			97		86
BIRTHS - -	Males	8		5	
Do. - -	Females	4		6	
STILL-BORN -		2		2	
			14		13

CALVIN PORTER, Ass't Clerk.

CONTRIBUTORS TO THIS VOLUME.

Doctor Wm. P. Hort, New Orleans, two articles.
" J. C. Cummings, do.
" A. R. Nye, do.
" Josiah Hale, do.
" D. Macgibbon, do., two articles.
" Frydinger, do.
" P. B. McKelvey, do., three articles.
" E. D. Fenner, do.
" Bennett Dowler, do., two articles.
" J. H. Douglas, do.
" S. A. Cartwright, do., three articles.
" G. T. Browning, do., three articles.
" J. L. Riddell, do., four articles.
" Foster, do.
" Thomas O. Meux, do.
" G. M. Wharton, do.
" Albert Welles Ely, do. five articles.
" J. C. Copes, do.
" R. L. Scruggs, Louisiana, three articles.
" E. A. Pye, do.
" John J. Clow, do.
" A. Ewing, do.
" R. F. Taylor, do.
" A. Patton, Mississippi.
" B. Harvey, do.
" C. S. Magoun, do., four articles
" S. B. Malone, do.
" J. T. Kennon, do.
" V. H. Fugate, do.
" S. L. Grier, do., two articles.
" R Riley, do.
" William M. Boling, Alabama, two articles.
" J. C. Hamilton, Mobile, do.
" J. C. Nott, do. do.
" H. C. Hillhouse, do.
" F. E. Gordon, do.
" J. A. English, do.
" W. Taylor, do.
" J. C. Massie, Houston, Texas, three articles.
" Shanks, Memphis, Tenn.
" Merrill, do. do.
" P. F. Eve, Nashville, do.
" W. C. Norwood, S. C., two articles.
" Thos. D. Mitchell, Ky.
" Thomas M Logan, California, two articles.