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"Je prends le bien où je le trouve."

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Typhoid Fever. By John S. Wilson, M. D., of Muscogee County, Georgia.

The extensive prevalence of this disease, together with the unsettled state of opinion in the profession, in reference to its pathology and treatment, will, I hope, be a sufficient apology for introducing it again, so soon after the "Remarks" of Dr. Long, contained in the June No. of this Journal. I shall, in this communication, endeavor to follow his excellent example, and shall make my remarks mostly practical. But, before recording my experience in the treatment of this disease, I will make a few general remarks in reference to its pathology, and some other points, which have so much divided the profession and given rise to so much discussion.

A great many of the difficulties involved in the consideration of continued fevers, originate in a confusion of terms, and in the attempts of writers on this side of the Atlantic "to give a European coloring to the pathology of our fever." Almost all our treatises on Continued fever are but transcripts from European writers, with their endless discussions as to the identity of typhoid and typhus fevers, or of typhoid fever and follicular enteritis. The history of continued fevers in the United States is yet to be written, (unless this has been done by Dr. Bartlett,) and it is to be hoped that our future investigations will be conducted with more independence; for I feel assured.
that the solution of the difficult problems presented to us, will be much facilitated by recording our own facts, and drawing from them our own conclusions, instead of trying to find a community of symptoms and organic lesion, in fevers originating under such dissimilar circumstances as the fevers of this country and those of Europe. We are much more interested in a correct pathology than in names; still it is very unfortunate that writers have used the same terms so differently, and thus rendered it almost impossible for them to understand each other; for if this were not so, a great many of the dissensions which now divide the medical world, and perplex the student, would cease. To say nothing of the discussions as to the proper application of the terms typhus and typhoid, it seems that European writers are not even agreed as to the use of the prefix continued, when used in a generic sense—"some taking one of its types, some another, from which to draw a description." The best means of obviating such difficulties is, to make continued fever a generic term, and apply it to all fevers not periodical; and I think it would be sufficient to embrace under this head only three varieties, viz: Synocha or inflammatory fever, typhus and typhoid; with subdivisions founded on the prominence of the particular symptoms, or, if possible, on the organic lesions. I have included the Synocha of Cullen, not because I think it will be often met with in practice, but because it may serve as a type or standard of comparison, as the antipode of typhus, or the typhus gravior, of systematic writers: the term Synochus, as used by Cullen, is certainly useless, if the word typhoid is retained; for he defines it to be—"Febris ex Synochù et typho composita," which means a fever partaking of the nature of typhus, or in other words, a typhoid fever; or a synochus in the beginning, and a typhus in the end.

It is not my design to enter into a discussion of the identity or non-identity of typhus and typhoid fevers; nor shall I attempt to say whether the latter shall be considered primarily, as an idiopathic fever, with consecutive intestinal inflammation, or essentially a follicular enteritis. On the first point—the identity of typhoid and typhus—I will quote from Dr. Bell, (Bell & Stokes' Lectures, vol. ii. p. 669,) merely remarking
that I fully coincide in the conclusion to which he has arrived. He says, after quoting numerous authors, and patiently investigating the whole subject, "If we were to institute a comparison between the two fevers, typhus and typhoid, we should find many more features of resemblance than of difference," &c. The second point—the symptomatic or idiopathic nature of typhoid fever—is one of vast importance, one worthy of the most serious consideration and the most studious investigation; for the settlement of this important question would have an important bearing not only on the treatment of this fever, but also on this whole class of fevers. It is generally admitted, even by those who do not adopt the French pathology, that inflammation and ulceration of the intestinal mucous membrane, and especially of the glands of Peyer and Brunner, are frequent concomitants of typhoid and typhus fevers: still we are not prepared to admit that this is an essential feature of the disease, for Andral has shown, that patients have perished with all the symptoms of typhoid fever, without any lesion whatever in this membrane. In the present state of our knowledge, I think it safest to assume the following positions—viz:

1st. There is no fixed anatomical lesion either in typhoid or typhus fever.

2d. Inflammation and ulceration are frequently found in the intestinal mucous membrane (Peyerian glands)* of typhus.

3d. Typhoid fever is only a milder form of typhus.

4th. That inflammation and ulceration of the intestinal mucous membrane, and especially of the glands of Peyer and Brunner, occur in the vast majority of cases, in typhoid fever, either as an essential feature or as a consecutive phenomenon.

5th. That typhoid, like typhus fever, is, under favorable circumstances, contagious.

I do not intend to discuss these propositions in extenso: I will only make a few remarks on the two last, and refer the reader to the work already quoted (Bell & Stokes, p. 659, et seq.) for a full exposition of the whole subject. One of the earliest

* Dr. Tweedie found these to exist in 24 out of 51 cases of typhus fever. Dr. Anderson reports 68 cases of inflammation and ulceration, in 74 fatal cases occurring at Glasgow; and a greater proportion than this even has been reported in Edinburgh.
and most characteristic symptoms of typhoid fever is abdominal tenderness, (on pressure,) together with increased force in the pulsation of the abdominal aorta, and other symptoms of inflammation in the viscera of this cavity. Post-mortem examinations made by Louis, Chomel, Gerhard, and others, show that this inflammation does exist, in the vast majority of fatal cases, in the fever, and that its seat is the follicular glands of Peyer and Brunner. Now, are we justified in drawing the conclusion from these facts, that this inflammation is pre-existent, and that the fever is only symptomatic?—that the term typhoid fever should be discarded, and that of follicular enteritis substituted? I think not; because it has already been shown from high authority, (Andral,) that all the symptoms of typhoid fever may exist without the lesion referred to; and it is declared by other observers that there is no uniformity in the violence of the abdominal lesions; and still less correspondence between the symptoms of the disease and the extent of the Peyerian lesion. But while I oppose the exclusion of the term “typhoid,” and the substitution of follicular enteritis, I would not by any means under-rate the importance of the latter; for though we may not be prepared to admit that it is absolutely essential to the existence of the group of symptoms termed typhoid—that it is the ipse morbus, the proximate cause of those symptoms—still we know that it is one of the earliest and most constant companions of typhoid fever; and whether we admit it to be the essential feature of this fever, or not, we should regard it as one of the most dangerous and uniform features, and treat it accordingly. So far as my experience goes, I can assert that I have never seen a case of typhoid fever in which there was not more or less evidence of intestinal inflammation, early in the disease; and I have always treated it accordingly, acting on the presumption that this is the disease; and while we do this, paying due attention, in the mean time, to all the symptoms as they arise, I think it matters but little whether we consider the fever idiopathic or symptomatic—typhus or typhoid.

The contagiousness of this disease, though it be one of the most interesting questions connected with it, I shall pass over slightly, because it involves the argument as to the identity of
typhus and typhoid fever, which I do not intend to discuss. It could be proved, if necessary, by quotations from numerous authors, that even typhus fever is not contagious, except under such circumstances as are found to exist in camps, jails, hospitals, and crowded, ill-ventilated and filthy apartments. Now if this be true, in reference to typhus fever, it will apply a fortiori to typhoid fever, admitting that this is only a mild or modified form of the former disease. I will dismiss this subject, then, by admitting that typhoid fever may be communicated by human effluvia under very favorable circumstances, such as those mentioned in connexion with typhus fever; but that it is not contagious, in the absence of such circumstances. With a brief record of my own observations and experience in this disease, I conclude.

My observation in this fever fully confirms the declaration of Dr. Long and others, that the disease “generally comes on slowly and gradually.” I also coincide with him in the value of this circumstance as a diagnostic; and not only as a diagnostic, but likewise as one of the elements of prognosis, for I have generally found that the gravity and obstinacy of the disease, bore some relation, or were in direct ratio with the duration of the premonitory symptoms. But while this is generally true, the invasion of this fever is sometimes sudden, and its progress to a fatal termination rapid. I have seldom been able to trace the onset of the disease to a distinct chill—headache I have found invariably in its beginning, but this symptom generally yielded either spontaneously, or to the treatment, during the first week, notwithstanding the gravity of the other symptoms might have increased.—(Vide Watson’s Practice, p. 938.) The skin is hot and dry, with some moisture frequently about the head; the tongue is coated with a dark brown fur, sometimes black, and in some of the worst cases it is red and clean, having a glazed appearance, as if it had been varnished—sometimes it is furred and cracked. Sordes are sometimes seen on the teeth, in the very inception of the disease, but generally this symptom does not appear until it has continued several days. I consider the early appearance of sordes an unfavorable symptom. I have found great variation in the pulse, so much, in well-marked cases of typhoid fever, that I
cannot assent to the declaration that it is "peculiar and characteristic."—I have frequently found it "small, quick and frequent," and I have sometimes observed the "double beat," mentioned by Dr. Long, but I have often found it slow and full, running from 75 to 100, and in some cases I have even found it below the natural standard in frequency—in others, it varies but little from the standard of health in frequency, having nothing morbid about it, except a little sharpness. These slow-pulse cases I do not consider so dangerous as the others, but I have always found them remarkably tedious—they will not die, nor will they get well soon. In conclusion, I would remark that I believe the pulse described by Dr. Long is the most common in this fever, while I cannot admit that it "is peculiar and characteristic."

Diarrhoea I have not found to be a constant symptom, and never an early one: it is occasionally absent during the whole progress of the disease, but there is generally diarrhoea, or a tendency to it during the second or third week. This will be explained when I come to the treatment.

The next and most important symptom belonging to this fever, which I shall review, is "abdominal soreness." This, so far as my observation extends, is an invariable symptom, so much so that I look for it as a matter of course, as one of the essentials* of the disease. I have generally discovered this soreness first in the epigastric region, even in the absence of nausea and vomiting; which latter symptoms I have most frequently found absent, as well as other direct symptoms of gastric irritation, save this soreness—this I have always found, in cases of all grades, from the mildest to the gravest. I think that this soreness has oftener extended towards the right hypochondrium than the left, and as this corresponds with the course of the duodenum, (the seat of the glands of Brunner,) I have been induced from this circumstance, and from the absence of gastric symptoms, to conclude that this was the real seat of disease, instead of the stomach; and that the sensibility of this organ was increased by sympathy with the duodenum. But it is my design to record facts, leaving theories to others. I do not wish to be understood as saying that I have never disco-

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*I do not use this term in a pathological sense.
vered this soreness anywhere besides in the epigastrium, because I have traced it to the right ileac region, but I have always found it existing first in the epigastrium. This tenderness is accompanied frequently by the gurgling sound mentioned by all writers, and I have been able to locate it by this sign alone, without any expression of pain on the part of the patient. As before observed, this soreness is one of the earliest and most constant symptoms—it is among the first to appear and sometimes one of the very last to leave; and I have noticed that the patient will not convalesce so long as it remains—he may stand still, but he will not advance. This soreness is seldom complained of except on pressure—sometimes it is felt on making a full inspiration. The eruption mentioned by authors, I have seen only in one case; this was accompanied also with anginose symptoms, and was rapidly fatal.

Pulmonary symptoms, according to my observations, have been equally rare. I have seen a few cases complicated with slight bronchitis. My experience has taught me, that our prognosis in this disease should be very guarded; and it has also taught me the sad lesson, that this fever will sometimes prove fatal under the most favorable circumstances of age, constitution, &c., even when the treatment is not "aggravating." I know of no disease more fallacious than the one under consideration: "grave and prolonged cases" will frequently terminate favorably, contrary to all expectation; on the other hand, the disease may commence without any unfavorable symptoms, and continue thus for several days, when the pulse will suddenly rise to 150 or 160, delirium and coma will supervene, and death soon close the scene.

In other cases all the graver symptoms may yield, but still they will not improve—they remain stationary for days, and even weeks, and may finally die. Even in these cases the chances are in favor of the patient, if we can keep the disease in abeyance without having resort to very active remedies. It is in such cases as these that we should act on the aphorism of Celsus—"Multi morbi curantur," &c. To conclude on this point: If the pulse rise to 150, and creeping or jerky—if the skin and tongue become more dry, or if the former be bedewed with a viscid sweat—if the delirium becomes furious, or
the stupor merges into coma—if the bowels are evacuated involuntarily, the case is almost hopeless.

I cannot leave this subject, without repeating my warning against a decided prognosis, for my experience fully confirms the declaration made by Dr. Watson, (op. cit., p. 957,) that the disease is "liable to sudden and remarkable change in the symptoms."

Treatment.—It has been remarked, with much truth, by the distinguished physician just quoted, that the treatment of continued fever has always been "a stumbling block to young practitioners," and I think I might add, with equal truth, to old practitioners too; for certainly there is no disease in which the practice is more unsettled; and it is equally true, that the most judicious treatment is too often unavailing. Before proceeding to the detail of treatment, I assume the two following positions, which I think will be granted by all, and therefore need not be defended—they are these:—1. This disease cannot be materially abbreviated by treatment, after it is fully formed: it "can be conducted safely through its different stages—it cannot be cured." 2. We have no specific remedy, nor have we any specific and established mode of treatment; this must be modified by the peculiar circumstances of each case, and the predominance of certain symptoms.

It will be readily inferred from the above that I have but little faith in emetics and other active measures recommended by some, for the cure of this fever; still I believe that emetics might be used with great advantage, in the very beginning, while the nervous system alone is, as yet, implicated; but unfortunately for the patient, the time for their use is generally past, when the physician is called, the disease being then "rooted and grounded."

Bleeding.—No remedy has given rise to more discussion than this, while the Armstrong and McIntosh school extol it too highly and use it perhaps too freely, their opponents go into the opposite extreme; and not satisfied with withholding it, they commit as great an error by the too early and free use of stimulants. In this, as in all other disputed points in medicine, we should ever bear in mind that sound maxim, "in medio tutisimus ibis."
As with emetics, the bleeding stage has frequently passed when the physician is called, but I think the remedy should never be withheld, when the pain in the head is severe, and the fever high, with evidence of actual or imminent inflammation in any organ, for fear of subsequent debility; for I contend that we can remedy debility attended with a subdued inflammation, with much more ease than we can subdue an inflammation after it has prostrated the vital powers. My plan is to bleed moderately and very cautiously under the circumstances mentioned; and if I have any thing to regret in this connexion, it is because I have not done so oftener, and a little more freely; for I confess that I have been afraid of the remedy; so much so that I have only of late adopted the plan of bleeding under any circumstances, in this fever. I will conclude on this point, by saying that no remedy requires more caution and sound discretion, than the use of the lancet in typhoid fever—that it may, as a general rule, be dispensed with, but in some cases, early in the disease, it is decidedly indicated, and should be used in such cases; for I believe where it is indicated, the salvation of the patient often depends upon it.

Local Bleeding.—Of the advantages of local bleeding in typhoid fever, I can speak in terms of decided commendation: the application of scarified cups to the epigastrium, or where ever abdominal soreness predominates, is one of my first remedies; and I repeat them again and again, until this soreness yields, or until the blistering period arrives. I have used this remedy as many as twelve times, in one case, with marked advantage, the patient expressing relief from the "fulness about the abdomen" and "shortness of breath," before the application was concluded. I never treat a case of this fever without applying cups to the abdomen; for they are always indicated by the soreness in this region. If there be much headache or cerebral disturbance, I also apply cups to the temples—in this way, I think they are more indicated, in active delirium than in coma.

Cathartics.—Some writers of great eminence recommend the use of active cathartics in the beginning of this disease, in decided terms, and I am acquainted with physicians who adopt
this plan; but I consider this more dangerous and objectionable than even the indiscriminate use of the lancet; because we cannot hope to cut short the disease by such measures, and they tend only to increase the intestinal irritation and set up an uncontrollable diarrhoea. So well am I convinced of this, that I withhold all active cathartics from the very beginning, and thus avoid the diarrhoea—it is to this plan I attribute the fact that I have seldom been annoyed by this troublesome complication. I commence generally by giving a small dose of calomel combined with Dover’s powder, with the intention of having it to remain from 24 to 48 hours—I then follow it by castor oil, giving directions to check the bowels if the evacuations are thin and watery.

Opium.—The use of this remedy requires much caution, on account of the tendency to coma; but it may be used with the happiest effect, where the excitement is more nervous than vascular, with more vigilance than coma. In doubtful cases it should be commenced in small doses, and increased pro re nata. I generally withhold it, unless there be some decided indications for it, and when I use it, I prefer the Pulv. Dov. It is best to give this at night, and let the patient rest undisturbed, if he will. I think the plan of arousing patients from a quiet sleep, to give them medicine, very objectionable; for this is a better remedy to the exhausted powers than any we can apply.

I did intend to review several other remedies, and conclude with a general summary of my experience in their use, but as the limits of this article will not admit of it, this design must be postponed to some future time.

ARTICLE XXVIII.
Surgical Cases. By C. T. Quintard, M. D., of Roswell, Ga.

The following case is reported, as illustrative of the principles, adduced in a paper on “Injuries of the Cranium,” read before the Medical Society of the State of Georgia, at its last session, by Henry F. Campbell, M. D., of Augusta, and subsequently published in the Southern Med. and Surg. Journal:

Wm. H., æt 38 years, was, during an affray on the 1st Jan. 1850, struck by a stone (weighing two pounds) on the left
frontal region, near the coronal suture; which produced a fracture, with depression of a portion of the bone, attended by considerable hemorrhage. Coma immediately supervened, in which condition he lay several days; at the end of which time the coma subsided, and of his own accord he got up and walked about; seemed conscious of surrounding objects and events, but had lost the power to articulate. At the end of eight weeks the wound of the scalp had healed, with the exception of a fistulous opening through which a profuse discharge of pus was flowing, and which gave passage at successive intervals to nine spiculae of bone, varying from a line to a half inch in length. At the time of our seeing him, there was a fistulous opening through the scalp, communicating with a triangular opening in the skull, having its base above and on a line with the suture, its apex downwards, through which the pulsations of the brain were discernable. To the left of this opening the probe detected a large spicula of bone, and also an ossific deposit pressing upon the dura mater. The patient had, to a certain extent, lost his memory and hearing—which last defect was marked by a "constant roaring in the head." His general health was tolerably good. The operation (April, 1851) consisted of a crucial incision over the depressed bone, and the flaps of integument being freely dissected up, the trephine was applied, and the bone, which had partially re-united, was removed. At the point of bony union there were numbers of ossific points protruding downwards into the substance of the brain, and also a loose piece of carious bone floating loosely in the pus with which all the parts were suffused. Immediately—*instantly*—on the removal of the bone, the roaring in the head ceased and all disagreeable symptoms subsided. The wound was dressed by adhesive plasters, and a simple bandage applied—adhesion went on rapidly, and the patient in a few days returned to his home.

The phenomena presented in the above case are somewhat remarkable. The long continued coma—the aphonia and loss of memory, together with the decided aberration in the function of audition—are symptoms which fully establish the rationale of these effects, developed and commented upon by my friend Dr. Campbell.
Dr. C. accounts for similar results of pressure on the brain by a destruction of equilibrium of pressure.

Osteo-sarcoma of the Inferior Maxillary—Exsection and Recovery. Miss D. S., æt about 21 years, had had a slight enlargement on the base of the lower-jaw, from the period of her second dentition, which had remained nearly stationary till she arrived at the age of 14, when on the appearance of the menstrual phenomena, this tumour suddenly evinced a disposition to an increase of activity, which was attended by periods of pain and uneasiness. Two years subsequently, its growth became more rapid and the tumor continued to extend towards the symphysis, though not at all in the direction of the ascending ramus. At the time of our seeing her, she was very much disfigured by a large tumor over the left side, extending from the angle of the lower jaw, quite to the symphysis. Projecting from the mouth, was a large, red sarcomatous tumor, about an inch in diameter, which prevented the closure of the lips. On examining within the mouth there was discovered a considerable enlargement in the form of a firm fleshy mass, with a reticulated structure of bone on its posterior portion. This was easily crushed by pressure with the finger.

Notwithstanding her general health was unpromising, and bore the usual features of carcinomatous cachexia, we determined upon the operation of exsection as the only possible method of relief.

The patient was subjected to the influence of chloroform, and the operation performed in the ordinary mode, viz., an incision was made along the base, commencing a little above the angle and terminating about half an inch to the right of the symphysis. This was met by a perpendicular incision from near the vermillion border of the lower lip to the termination of the first incision. The flap was raised and the bone divided with Hey's saw, first above the angle, and afterwards at a point to the right of the symphysis. It was then dissected from the muscles and other attachments, and removed. Besides the facial, but one small artery required the ligature, and withal, the hemorrhage was but trivial. A piece of sponge was placed in the position of the removed bone—the lips of
the wound brought together and retained by three sutures, and adhesive straps, and rendered secure by the application of the bandage. The wound healed rapidly in every respect, and the case progressed finely towards recovery. Eight months have elapsed since the operation, and as yet there is no disposition to a return exhibited. The deformity is very slight, and the patient enjoys excellent health and spirits. In relation to this case, there is perhaps but one practical remark to be suggested, and it is from the low condition of the patient at the time of the operation, and also the advanced stage of the disease. Should this terrible affection return, we have the satisfaction of having secured to our patient a considerable period of actual comfort and health.

ARTICLE XXIX.

CLINICAL REPORTS, No. 1.


Under the above caption it is proposed to give, from time to time, a series of articles comprising details of cases as they occur in the sick room. The term "Clinical Reports," has been usually applied to the practical instruction imparted to students at Medical Schools when the subject of the disease lectured on is before them, while clinical instruction is used to designate the hospital clinique. Should the clinical reports appear in print, as they frequently do, they would be to the reader in the same light as a record made at the bed-side of the patient and communicated to him through the journals. There can be no impropriety then in extending the use of this term to reports made in the sick room by a physician in private practice, since the literal and etymological meaning of it is bed-side report. As regards the necessity or utility of making such reports I would introduce the series with Surgeon Bell's opinion:

"It will be generally admitted that practical observations on the treatment of diseases of daily occurrence are more valuable to the medical practitioner than the most interesting descriptions of anamolous cases, however extraordinary in their character, or successful in their treatment. I am convinced, indeed,
that the publications of the journals of well-employed medical men, giving in detail the treatment of every case occurring in their private practice, would prove most useful to the young practitioner, and be a valuable contribution to our medical literature."

To promote such views, the appended report is humbly submitted:

Case 1. June 1st, 1850.—The subject of the following notes was a negro woman aët. 35, of full habit and plethoric temperament. Up to the invasion of her last illness, she enjoyed excellent health and had given birth to twelve children without any impediment in parturition.

After the birth of her last child, a period of eight months, she has suffered from occasional uterine hemorrhage, sometimes very profuse, at others not so much. These hemorrhages in conjunction with a tumor, she distinctly felt in her left side, made serious inroads upon her constitution, and caused her a few months ago to relinquish her usual employment of field labor. A physician who was called upon to arrest the hemorrhage, under the impression of its being a case of menorrhagia, prescribed vaginal injections of alum water and some astringent tea. This course being persisted in for a week or longer without any mitigation of the hemorrhage, and the patient very reasonably becoming more enfeebled every day, I was requested by her owner to see her, and inform him of the true nature of her disease, for my predecessor had made neither digital nor instrumental examination, therefore he was not prepared to give an opinion of any diagnostic value.

I found the patient lying upon her back in a great deal of pain and considerably emaciated; the whole train of symptoms that usually characterize the anemic state was presented. She complained of constant pain in the uterine region, and could but illy bear pressure on the hypogastric region. She could get no rest at night, her bowels were usually constipated and her appetite was well nigh gone.

A vaginal digital examination revealed to me a soft tumor, the size of a hen's egg, of an oval form, filling up the vaginal cul-de-sac to the left, and leaving scarcely room to pass up two
fingers to the os uteri along the right side of it. Its consistence was not very dense, being soft, somewhat spongy and easily broken down between the fingers. By exercising slight pressure on it with the extremities of the fingers, I could bring away large portions of the morbid mass without inflicting any pain or exciting any sensation whatever in the patient. This heterologous mass apparently consisted of coagulated blood interspersed here and there with pieces the size of a pea (some larger) of a dingy white color, and soft, resembling adipose matter. Considerable quantities of this mass could be extracted with the fingers, thus infringing on the spheroidal form of the tumor; but in a day or two it would reproduce itself and again assume its former shape. It grew from the left half of the circumference of the uterine lip, its peduncle embracing from half an inch to an inch of the external surface of the cervix of the same side. About four-fifths of the capacity of the vaginal cul-de-sac was blocked up with the tumor, impeding the movement of the uterus in any direction. The os uteri was sufficiently patulous to admit the first phalanx of the middle finger; the lips, hard and rendered uneven by several notches, presented a cartilaginous feel. There was more sensation manifested when the lips were touched, or the finger introduced within the cervical cavity, than by any manipulations with the tumor itself. Its peduncle (if its attachment to the os and cervix could be so called) was many degrees larger than that usually assigned to polypus; indeed the plain of the tumor on its upper surface was inclined to an angle of about 23°, the inclination commencing at its attachment to the cervix and extending to its convexity, while inferiorly its neck was as well defined as the neck of the ordinary brass knob of a door. The tumor bled, though not freely, when touched, so that when examined the hand was smeared with blood. The surface of the tumor was neither rough nor granulated, but smooth; and the parts detached differed in no respect from the uniform appearance of coagulated blood. The parts torn off had a slight unpleasant odor, but none of that which usually attends a malignant growth in these parts.

Without coming to a definite conclusion as to its nature, I prescribed vaginal injections of sulphi. of zinc, opiates at night,
and quinine and iron to retrieve her lost strength. These means arrested the hemorrhage to a very great extent, and her health recruited considerably for two weeks, when she suffered from another attack of hemorrhage that counteracted what improvement she had made.

In the mean time, I had satisfied myself, as I thought, of the nature of the tumor by repeated vaginal examinations, digital and with the speculum; and was corroborated in my opinion by two gentlemen of extensive experience in the diseases of females, who were consulted by letter.* Regarding the tumor to be a polypus, Gooch's canula was procured, and several attempts were made to throw the ligature round the neck of the tumor, to no effect. Efforts were made with ligatures of different materials, viz: cat-gut, whip-cord and silk, wrapped round with fine metallic wire. The greatest difficulty in the way was the retention of the ligature on the neck of the tumor in consequence of the thickness of the stalk and the inclined plane of its superior surface; for as soon as the slightest force was used in tightening the ligature, it would slip from the sloping surface aforementioned over the cavity of the tumor. After three or four unsuccessful attempts in this way, I was convinced that at least I could not remove it with the ligature; so I requested three neighboring physicians to see the case with me. Each one examined for himself, and it was determined in consultation to make a final effort for its removal with the ligature, which was attended with no better success than the others. In this event, it was agreed to put her on a palliative course of treatment, and wait for further developments of the tumor, in the hope that its form might become more favorable for removal. It was also frankly announced to the owner, that if the tumor could not be removed the issue would prove an unfavorable one.

A short time after the last effort for removal was made, her master, harrassed by the patient's importunities, and as a placebo to her sufferings, put her under the charge of a certain non-descript practitioner, who continued to treat her until her death.

In April of the year (1851) I was in attendance on another

* Drs. J. A. Eve and H. F. Campbell, of Augusta. Vide seq.
case on the plantation where the subject of these notes resided, still taking medicine from the "root doctor," as the non-descript is popularly denominated. In view of the lively interest I felt in the case, I was induced to see it; and lo, what a loathsome spectacle of human suffering was before me! As soon as I entered the cabin where she lay, I was instantly assailed with the most offensive odor I ever had perception of. She lay on her back in the utmost agony and could not move but with the greatest caution on account of the pain she endured. She was not as much emaciated as she is described at the head of these remarks; but her round features and plump appearance were owing to anasarca. The left extremity was the part most affected, being nearly one half larger than its natural size. About the middle of the left leg was a sore that continually discharged a thin serum.

I made but a very unsatisfactory vaginal examination in consequence of the foul odor emitted; and from the same cause my desire of examining with the speculum was frustrated. The condition of the morbid region was far different from what I have already described it. The spheroidal tumor was replaced by a hard cartilaginous mass of irregular surface; or rather, the tumor had disappeared and somewhat of an irregular cavity was left in its place. Much of the uterine substance was lost by ulceration; the os uteri had lost its outlines, and as well as I could judge, the morbid action had taken possession of the uterine body. The pulse at this time was 120 per m., and her nights were sleepless. In about three weeks death closed the suffering scene.

Remarks.—The first enquiry that occurs to the reader's mind after the perusal of the foregoing details is: what is the nature of the tumor in question? I am not certain that I can answer this enquiry satisfactorily, inasmuch as the nature of the tumor is involved in some obscurity. Instead, therefore, of endeavoring to point out what it is, I will proceed to its investigation negatively, ("par voie d'exclusion," as the French term it,) in order to arrive at its real character.

The tumor under notice exhibits many features common to polypus in this region, which it may not be amiss to enumerate.
1stly. Its somewhat pedunculated form and smoothness. 2dly. The absence of ulceration at the time the diagnosis was made out, and insensibility to the touch. 3rdly. Hemorrhage and a correspondence of their places of attachment. 4thly. The manner of its connection to the uterus. Thus it is said that polypus, instead of being imbedded in the substance of the uterus, is attached to some part of it by a neck or pedicle, of a less diameter than the body of the polypus; so it was with the tumor under consideration. In this connection I will take the liberty of quoting the opinions of my esteemed friends, Drs. J. A. Eve and H. L. Campbell, of Augusta, Ga., in relation to the diagnosis of the present case. And it is but justice to these gentlemen to state that the data from which they drew their conclusions were meagre in the extreme, from the circumstance that the written description I gave them was necessarily scanty and unsatisfactory.

Dr. Campbell says: "I have examined the portion of tumor; as well as it would admit of, not however with the microscope; it is too dry to ascertain any thing certain about it. It is in all probability a polypous or encephaloid growth. If cancerous, I would be inclined to the opinion of its being of encephaloid rather than scirrhus form, from the youth of the patient and the softness of the tumor. But the strong probability is that it is a polypus, from its pediculated form, and also from the fact that malignant growths seldom form upon the healthy tissues, but among them; while the non-malignant, to which class polypus belongs, are found invariably upon them, or in an isolated space by themselves, but not having their tissue mixed with healthy tissue, as in malignant growths."*

Prof. J. A. Eve says: "With respect to the nature of the tumor, I believe it is a polypus. I gave your specimen and letter to Dr. Campbell, that he might examine by microscope; his reply expresses my opinion. I have not the slightest hesitation in advising the removal of the tumor by ligature and cauterization of the point from which it sprung, by nitrate of silver."†

Again: In a note in Churchill’s Diseases of Females, p. 177, Dr. Lee describes a variety of polypus strongly resembling in

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* Extract of Dr. C.'s letter to writer. † Extract of Dr. Eve's letter to writer.
substance the one under notice. He says, "a fourth variety of tumor of the uterus, to which the term polypus has also been applied by writers, is produced by a morbid enlargement of the glandulae or ovulae nabothi. One of these two bodies is sometimes converted into a cyst, as large as a walnut, or even a hen’s egg, and hangs by a slender peduncle from the cervix or lip of the os uteri. It is smooth, and vascular, and contains in some instances a curdly matter, or yellowish colored viscid fluid. The tumor produces great irritation, and gives rise to copious sanguineous and mucous discharges from the vagina.”

Another case from the same authority extracted from a paper by M. Langstaff, in the 17th vol. of the Medico-Chirug. Trans. p. 63., and the affirmative evidence is at an end. “Mrs. ——, aged 59, in whom, a few days previous to death, there was a large polypus in the uterus projecting into the vagina, died of hemorrhage, before a ligature was applied.

“Dissection.—The body of the uterus and its parietes were much larger than natural, yet there were not any signs of scirrhus or fungus hematomas.

“A polypus had formed at the superior part of the fundus of the uterus, which seemed to have had its origin in the muscular coat, it had projected into the mucous surface, and proceeded along the cavity in the form of a large pedicle, nearly equal in size to its base; and the growth had passed through the os uteri into the vagina, where it had acquired the magnitude of a large peach, and assumed the appearance of a fungoid tumor.

“The mucous surface of the tumor, in the vagina had been destroyed by ulcerative absorption; it was coated with coagulated blood, which appearance induced me to suppose that the hemorrhage had proceeded principally from this part, and not found the vessels belonging to the internal surface of the uterus. On cutting through the whole extent of the polypus, I found the cervix of a dense structure, exactly similar to that of the uterus; but to my astonishment, when the incision was extended through that part of it which had entered the vagina, I found in its centre grumous blood contained in a dense cyst, surrounded by coagulated blood.”

* The italics in this report are the writer’s.  † The italics are the writer’s.
The substance of the tumor described in the former case as polypus corresponds somewhat with the description I have given of the tumor in the present instance. Mark the record: "This heterologous mass apparently consisted of coagulated blood interspersed here and there with pieces the size of a pea, of a dingy white color, soft, resembling adipose matter." Dr. Lee's tumor is "smooth and vascular, and contains, in some instances, a curdly matter, or yellow colored viscid fluid." Thus the fourth variety of polypus described in Dr. Lee's paper furnishes a parallel to the present in some of the particulars that present a disparity from the ordinary appearances of polypus viz: the heterogenous nature of the tumor. And M. Langstaff's case exhibits a polypus coated with coagulated blood—a condition that existed in our tumor, as has been stated in the fact that by the pressure of the fingers considerable quantities of the tumor could be detached, differing in no respect from coagulated blood, save in the interspersion here and there of fatty matter.

Thus we see that the tumor we have been considering has many symptoms in common with polypus: we will next give the negative facts. Dr. Churchill assures us that polypi are seldom or never attacked by inflammation or ulceration, and they never degenerate into malignant disease.* Our tumor, therefore, was not a polypus, for the fatal result certainly proves that it was not otherwise than malignant; the patient died, not of hemorrhage, nor from mechanical inconvenience, but from constitutional irritation. Dr. Hamilton, speaking of Dr. Gooch's opinion concerning the source of hemorrhage in polypus, says: "But the experience of the author leads him to entertain a very different opinion on this subject; for, in the first place, in no instance to which he has been called has there been any bloody discharge from the surface of the polypus, notwithstanding any liberty he might have taken in pressing upon it, and in attempting to twirl it round."

* The italics are the writers. "The nature of non-malignant tumors consists essentially in this, that they are formed of the persistent elements of the body, and as such maintain their existence and participate in the general metamorphosis of the tissues. They may indeed be destroyed by softening and ulceration, but this is effected through the agency of causes which are not inherent in their nature, but are only accidental and exoteric."—(Vogel, Path. Anat., p. 240.)
It will be remembered, that whenever the tumor of the case we have been noticing was touched, it bled some, though not freely, and a vaginal examination was always attended with more or less of a sanguineous discharge. According to Dr. Hamilton's experience, then, this could not have been a polypus. It differs from simple induration in being better defined, more distinct, less dense, more disposed to bleed and more easily broken down. From fibrous tumor—in being less dense, and ultimately by the ulceration and foetid discharge. From simple ulceration, attended with chronic enlargement and induration—in the well defined form of the tumor, its size and softness, and the termination of the two diseases. From prolapsus uteri—in its distinct attachment to the os and cervix; the repeated hemorrhages and the presence of the os alongside of the tumor. From inversion of the uterus in the absence of sensibility when touched, and the presence of the os in situ.

There are other morbid changes which may occur in the region where this tumor was developed, but of such distinctive characters that it is deemed unnecessary to touch on them. The pain enumerated among the symptoms present when I first saw the patient is somewhat difficult to reconcile. The surface of the tumor was insensible to the touch, while she suffered considerably from pain in the uterine region which was amenable to opiates.

The diagnostician will, I hope, profit by the gross neglect of the physician who treated this case one week without making a vaginal examination; and it will add value to Dr. Churchill's maxim that no case of uterine hemorrhage should be managed without making a vaginal examination. In conclusion I must express regret that I am unable to determine with what variety of malignant disease to class this case. I had determined at the beginning of my notes to trace it to its variety, but I cannot find a parallel, so I will leave the subject sub judice.

[to be continued.]
Clinical Lectures on Diseases of the Chest. Delivered at the Hospital for Consumption and Diseases of the Chest. By Theophilus Thompson, M. D., F. R. S., Physician to the Hospital.

LECTURE I.


The hospital in which I have the honour of addressing you was founded for the relief of individuals suffering from a class of diseases, to which more than one-sixth of the annual mortality in this country is attributable. The opportunity for studying this class of diseases has hitherto been lamentably deficient, and no argument can be requisite to prove the desirableness of rendering this institution available for the communication of knowledge on the subject which it is specially adapted to illustrate. With this impression, it has been determined to deliver a course of clinical lectures; and whilst conscious of my own deficiency for the share of the task which I have undertaken, I am encouraged by the reflection, that my duty is not so much to communicate opinions as to assist you in the observation of facts, and by the conviction that knowledge acquired by your own attention, and made to fructify by the energy of your own mind, will take root with more certainty, and prove more productive, than any opinions which I might attempt to transfer to you complete and mature.

Let me remind you, at the onset, that lectures on the diseases of the chest involve far wider considerations than those connected with the science of auscultation alone. The probable duration of the disease, and the chances of its relief, have no exclusive relation to the extent of the local physical conditions. The various circumstances which characterize or modify the general constitutional state of the individual patient must be carefully considered before we can form a reasonable prognosis, or adopt a judicious treatment. Nevertheless, the various modes of physical investigation will, with propriety, engage a large proportion of attention, for it will well repay your careful study, and will lose its seeming complication, only by the devotion of patient care.
The systematic application of the ear to the investigation of the thoracic diseases is of modern introduction; but it is not generally known that the suggestion of such a method of inquiry was really made by one of our own countrymen, about two centuries ago.

Robert Hooke, surveyor to the city of London in the middle of the seventeenth century, who is said to have been the inventor of spring watches, and even in his boyhood to have exhibited great ingenuity in the construction of clocks, records his opinion that some modes of ascertaining the condition of the works of machinery might be extended with advantage to the investigation of the mechanism of animal life. The passage is worth your attention, and is at once so philosophical and definite, that you will probably feel some surprise that such a suggestion should have remained so long unnoticed.

"There may be a possibility," says Hooke, "of discovering the internal motions and actions of bodies by the sound they make. Who knows but that as in a watch we may hear the beating of the balance, and the running of the wheels, and the striking of the hammers, and the grating of the teeth, and a multitude of other noises—who knows, I say, but that it may be possible to discover the motions of internal parts of bodies, whether animal, vegetable or mineral, by the sounds they make; that one may discover the works performed in the several offices and shops of a man's body, and thereby discover what engine is out of order, what works are going on at several times, and lie still at others, and the like. I have this encouragement, not to think all these things impossible, though never so much derided by the generality of men, and never so seemingly mad, foolish, and fantastic, that as the thinking them impossible cannot much improve my knowledge, so the believing them possible may perhaps be an occasion for taking notice of such things as another would pass by without regard as useless. And somewhat more of encouragement I have also from experience, that I have been able to hear very plainly the beating of a man's heart; and 'tis common to hear the motion of the wind to and fro in the guts and other small vessels; the stopping of the lungs is easily discovered by the wheezing. As to the motions of the parts, one among the other, to their becoming sensible, they require either that their motions be increased, or that the organ be made more nice and powerful, to sensate and distinguish them as they are; for the doing of both which, I think it is not impossible but that in many cases there may be helps found."

It may be interesting to you to hear a few particulars of this ingenious philosopher, a short notice of whom may not be thought inappropriate to the occasion of our meeting.
Robert Hooke was born in 1635, and died in 1702. He was intended for the church, but a liability to headache interrupted his studies; and on attempting to become a painter, under the instruction of Sir Peter Lely, the same affliction, aggravated by the smell of paint, again changed his destination. He was for a time pupil to Dr. Busby. In 1655, he assisted Dr. Willis in his chemical illustrations at Oxford, and probably took a part in constructing the first air-pump, introduced by that eminent philosopher, Mr. Boyle. He stated some ideas regarding gravitation, approaching so nearly to those which immortalized Sir Isaac Newton, that this great man, with the ingenuousness of true philosophy, gave Hooke full credit for an approximation to that great discovery.

Robert Hooke, in his suggestions for an improved plan of building London, may be said to have anticipated some important measures of sanitary reform. He obtained through Cornelius Drebbel the first microscope used in England, and in 1629 discovered the cellular structure of plants, applying to the separate cells the name of utriculi. It is remarkable how little additional knowledge of importance was attained in this direction until 1833, when Robert Brown, in his work on Orchideæ, described the cytoblastema, or cell nucleus.

You will agree with me that Dr. Tiltson, the Archbishop of Canterbury, exercised a sound discretion in making Hooke, by patent, Doctor of Medicine.

This short account of the observations and intellectual character of Hooke, will not be unseasonable, if it serve to impress you with the conviction, appreciating as we do the ingenuity of his suggestions of helps to auscultation of the living body, that the rules for physical investigation are not arbitrary and mystical, but distinctly deducible from scientific laws.

The credit fairly due to Hooke in no measure detracts from the merit of Laennec. That distinguished physician,—with scarcely a hint to help him from previous observers, excepting an erroneous statement of Hippocrates, that a sound like boiling water could be heard in the chest of patients with watery effusion, and also a general remark by Double, the author of the Semeiologie,—in two short years of observation produced the first edition of that immortal work on Diseases of the Chest, which constitutes the solid groundwork of our knowledge of thoracic diagnosis. Laennec, however, was fallible, and made one important error: engrossed too much with the instruction derived through the ear, he disregarded the information obvious to the eye. To the great value of indications afforded by inspection, let me now make it the object of this lecture to call your special attention. The two sides of the chest, when in
the healthy condition, appear symmetrical in form, and similar in movement. A change in these respects, obvious to the practised eye, is usually induced by any serious disease of the lungs or pleura. Let me show you proofs of this statement.

The patient now before you was sent into this hospital under the idea that "one lung was gone from consumption." But although he had rapidly become thin, suffered from profuse night perspirations, and expectorated great quantities of "purulent matter," the aspect of the chest made me doubt the correctness of the opinion. You see that during inspiration the expansion on the two sides is equal, and that it is quite free even in the sub-clavicular regions. Your eye witnesses truly.

This patient, George S——, aged eighteen, a musician, is of phlegmatic temperament and orderly habits, but obliged, by his profession to keep late hours. He was admitted Nov. 5th, 1850. At the age of six, and several times subsequently, he is said to have had considerable enlargement in the region of the liver, which subsided, but seventeen months since recurred to an unusual extent, and did not yield to remedies. About eight months ago, he had violent attacks of cough, attended with expectoration of frothy yellow matter; in about three days the humour subsided, but he still continued to expectorate; the expectoration containing pieces of skin which he compares to gooseberry husks. Five months ago, fresh exasperation of his cough occurred, with expectoration of bags of humour "the size of a chestnut. When the cough was tolerably easy, these bags came up whole; when the cough was hard, they broke, their contents being first ejected, and their skins afterwards." He asserts that he could feel the bags come from the region of the liver. About two months since, fresh exasperation of his cough occurred, with imminent danger of suffocation. He says he felt a tearing sensation about the liver, as if something required to be ejected.

He soon began to throw up skins and a piece of what he called gut, about a foot long, and was obliged to tear these from his mouth to prevent suffocation. A week afterwards he had a fresh attack of cough, with expectoration of matter like yellow jelly covered with blood. He then brought up several pieces of shrivelled reddish skin, which, when stretched out, would each have covered the first. There was more blood mixed with them this time than before. For three or four days after, he continued spitting up a reddish humour containing small fragments of skin. Five weeks ago, during a period of two days, he spat up a large quantity of black congealed blood. Three days previously, and two days subsequently, to his admission, he expectorated a peculiar peach-coloured matter, which,
when submitted to the microscope, was found to contain pus and mucous globules, but no ecchinococci. He has always eaten much vegetable food, and been particularly fond of cabbages; has never had jaundice. His father was asthmatical; one of his brothers died of phthisis, another brother died at the age of four, three days after the bursting of a tumour, immediately below the ear, which in the course of a month had gradually acquired the dimensions of a goose's egg, and on bursting gave exit to a fluid resembling water. A fortnight before death, "a film formed over the sight of both eyes," and four days before his death he became "stone blind."

S—— is five feet seven inches high, his weight nine stone four pounds and a half. He sleeps well, but still has nightly perspirations. Expectorates about an ounce and a half daily, more easily on stooping or lying down.

There can be little doubt that this case is one of hydatids of the liver, which have by absorption found their way into the lungs, and been expectorated. Every circumstance, particularly the improvement in his strength and the absence of ecchinococci in the expectoration, may encourage the expectation of his perfect recovery. In the cases of hydatids which have come under my observation, I have generally ascertained one or more of the following circumstances—hereditary liability, vegetable diet, or blows. This patient cannot recollect receiving any blow on the side. He has, however, taken much vegetable food, and the brother's history is remarkable in relation to hereditary tendency. Two inquiries present themselves in reference to the origin of these hydatid cases: First, what is the mode of introduction of the ova? Secondly, is there impaired vitality of some organ, rendering it apt to harbour these animalcules? The influence of moist food on sheep and rabbits, as increasing their liability to hydatids, is a matter of observation, and from analogy we should recommend in the human subject, when affected with these parasites, a nourishing animal diet. The promotion of the hepatic secretion is also desirable; the introduction of bile into acephalocysts seeming to be destructive to these parasites, and favourable to their elimination. The treatment of S—— has consisted chiefly in a generous diet, the administration of tonics, with taraxacum, and the application to the hypochondriac region, of an ointment of iodide of potassium. His general strength is much improved, and the fullness in the hepatic region is subsiding.

The next patient whom I place before you has a very different aspect of chest. Even those of my audience who are at a distance can tell me at once that the lower half of the right side of the chest is flattened, and scarcely moves in inspiration.
You see also that the apex of the heart beats close to the left nipple, instead of its proper situation, namely, two inches below, and an inch within that part. You form a surmise that the cause of these conditions is contraction from pleurisy, and further observation confirms the correctness of the suspicion conveyed through the eye. If the heart were displaced by existing effusion, you would probably see bulging rather than depression. You put your hand on the flattened portion of the chest as the man speaks, and the vibration of the voice is distinctly perceived; effusion therefore does not exist, for that would interrupt the communication of the vocal thrill. You make percussion, and find dulness greater than false membrane on the pleura alone would produce, but the dulness lessens as you proceed upwards to the apex. The cardiac dulness is displaced, but not extended; that from the liver extends too much on the left. Accompanying the first sound of the heart, a loud murmur is heard near the apex, but not in the epigastrium or to the right of the sternum above the cartilage of the fourth rib.

This patient, Thomas C——, a sign-painter, aged nineteen, was admitted on the 23d of December; height, five feet, two inches, and three-quarters; weight, seven stone, thirteen pounds; vital capacity by spirometer, 114. He has always lived well till lately, and has usually resided in London; has no hereditary tendency to phthisis; his father died of dropsy at the age of sixty-two, and his mother of jaundice at sixty. He enjoyed good health till three and a half years ago, whilst on a voyage, when he received a severe blow on the right side of the chest, after which he expectorated about four ounces of blood. Six months afterwards he had rheumatic fever and inflammation of the lungs, and his sputa were streaked with blood. About eighteen months since he had a recurrence of hæmoptysis, he thinks to the amount of two quarts in a week, and since that time his breathing has been oppressed, and some degree of hæmoptysis has occurred whenever he has attempted to resume his occupation. He complains of a sensation of tightness of the chest on the right side; relieved by making pressure on the left; cough slight; expectoration frothy; respirations 32; pulse 88, not strong; digestive organs natural; enjoys exercise, but sleeps badly, and perspires at night.

In this case the cardiac murmur obviously indicates regurgitation from the left ventricle into the corresponding auricle. This regurgitation, however, is probably not considerable, for the circulation in the radial artery is not disturbed or irregular. There are various circumstances in this man's condition, encouraging us to hope that he will escape phthisis. The mitral disease is probably due to rheumatism, and such disease is ra-
ther inapt to occur in phthisical subjects. The dulness on percussion is least at the apex of the lungs, where tubercular disease is most common, and greatest at the part corresponding to the blow, which, by inducing inflammation and occasioning consolidation of the pulmonary structure, may have rendered the thrill of the voice more than usually observable. The frequent occurrence of haemoptysis might excite suspicions of a tubercular tendency, but any such apprehension is qualified by the fact that this occurrence was preceded and probably induced by a blow. Some friction sound at the border of the contracted part of the chest announces that some inflammation of the pleura still exists. A blister has been in consequence applied, and the patient is improving under the use of iodide of potassium.

The next patient, George S——, you observe, moves the right side of the chest moderately during inspiration, especially at the upper part, but the left side scarcely at all; you suspect tubercular disease from this fact, and further examination confirms that opinion. Percussion yields a dull sound over the whole of the left side, and in the sub-clavicular region a sound is elicited which some of you will recognise as amphoric, like that produced by filliping the distended check, and doubtless arising from the proximity of a considerable cavity almost full of air. If a smart stroke be given whilst the patient’s mouth is open, you hear the sound denominated by the French, bruit de pot fêlé, resembling, as the designation implies, the noise produced by striking a cracked-pipkin. You may imitate the cracked-pipkin sound by doubling the hands together rather loosely, and striking the back of one of them against the knee in such a manner as to allow some escape of air. The production of this particular sound by percussion of the chest, is doubtless owing to the proximity of a considerable cavity, having yielding walls and free communication with one or more large bronchial tubes. If, whilst the patient’s mouth is open, you strike smartly over such a cavity, air escapes freely and suddenly from it into the bronchus, and thus the peculiar sound in question is produced. S—— has no hereditary tendency to phthisis, but for fifteen years has been scarcely free from either syphilis or gonorrhœa. The free use of mercury, an unsettled life, and, we may suppose, an uneasy conscience, may have proved adequate for inducing the disease. He began to cough three years since, and a year afterwards to lose flesh; ten months ago he expectorated about four ounces of blood; his sputa green and viscid, average in quantity ten ounces in the twenty-four hours. Occasionally the cracked-metal sound is suspended, probably in consequence of plugging of the bron-
chial tube by the viscid secretion. Pulse 84; respirations 32. There is a chronic ulcer on the leg, which we shall not attempt to heal, for he always feels better when it discharges freely. He has fluctuated considerably, but on the whole improved in strength under the use of cod-liver oil. Belladonna pills and various measures have been adopted for the cough, but the only medicine which relieves him is the following liniment:—Hydro-
chlorate of morphia, one grain; diluted hydrochloric acid, fine
minims; diluted hydrocyanic acid, half a fluid drachm; syrup
of squills, one fluid ounce. Water, one fluid ounce. Mix.
One drachm to be taken when the cough is troublesome.
The last patient I have to introduce to you to-day is Charles
B——. As you watch the movement of his chest, let me
remind you that the advance of either of the five upper or
"thoracic ribs" in ordinary inspiration varies from .02 to .07
of an inch, and in an extraordinary effort may extend to about
two inches; whilst the four or five inferior ribs, which obey
the influence of the diaphragm, move outwards ordinarily from
.25 to .3 of an inch, or in an extreme inspiration about an inch
and a half. You will observe that the upper part of B——'s
chest moves in correspondence with this rule; but that the
lower part, instead of advancing according to this rule, abso-
lutely recedes. By means of Dr. Sibson's chest-measurer,
(Medico-Chirurgical Transactions, vol. xxxi.) we may deter-
mine the exact amount of this deficiency of movement; or if
you have not had sufficient practice for the dexterous man-
agement of this instrument, try that of Dr. Quain, in which the
sliding joints are dispensed with. Even this instrument, how-
ever, excepting to those practised in its use, is not more trust-
worthy than the eye. In practice, the attentive eye soon
detects the difference of form and movement associated with
the diseases to which I have referred; but it is doubtless a great
advantage to be able to state to others, by the aid of a gradu-
ated instrument, the exact amount of difference. If you strike
this patient's chest, the sound elicited is clear; and you have
already recognised the characteristic movement of emphysema.
The diaphragm in contracting affords space for the expansion
of the lungs, but the pulmonary cells already filled cannot admit
more air; atmospheric pressure, therefore, takes effect, and the
ribs are forced inwards. This patient is a tailor. He has been
subject to colds for ten years, owing, he thinks, to transitions
from hot workshops lighted with gas into the cold air. During
the last three years these colds have become almost incessant.
He has suffered from shortness of breath and cough, and occa-
sional paroxysms of dyspnœa. For the last ten months he has
kept his room; sleeps in the sitting posture, with the body
bent forwards: expectoration partly viscid, partly frothy; sonorous and sibilous rhonchi heard all over the chest; pulse 88; respirations 26. He has no hereditary tendency to phthisis or to gout, and has never had hæmoptysis. Asthma would seem in this case to be a consequence of chronic bronchitis and emphysema. It is a disorder depending probably on a peculiar susceptibility of that part of the nervous system which supplies the bronchial tubes and pulmonary cells, but a susceptibility which is rarely manifested in a decided manner until some additional influence is exerted, such as indigestion, gout, bronchitis, or cardiac disturbance. The emphysematous condition of the lungs, which frequently accompanies asthma, is well entitled to your careful study. It is connected with an atrophied condition of the pulmonary cells. If at any early period of the disease you make a microscopical examination of the affected lungs, you will observe a number of little bright dots, like oil-globules, on the membrane which sustains the vessels. At a later period you will find the membrane cribriform, and its meshes of vessels more widely separated than in the natural condition. Partly in consequence of the deficient supply of blood, and partly, it may be, from venosity of the circulating fluid, diminished liability to phthisis is characteristic of emphysema. When cicatrized cavities are found in any part of the lungs, it is common to discover emphysematous portions in the adjoining structure, probably because the obliteration of vessels which attends such cicatrization tends to diminish the supply of blood to the neighbouring cells. Even when you have reason to suspect the existence of phthisis in emphysematous subjects, you have ground to hope that the tubercular disease will be slow in its progress.

There is something very capricious in the asthmatic susceptibility. Some individuals have paroxysms only in town, some only in the country; others indifferently in town or country, but experience relief from the attack by immediate change either to one or the other. The late duke of Sussex, who became asthmatical at a very early age, always escaped the paroxysms when at the foot of Vesuvius, but suffered repeatedly when residing in Naples. Measures which immediately relieve the fit in one individual are useless in another. Sometimes, indeed, in the same subject a remedy at one time efficacious will at another time utterly fail. Thus, in our patient B——, smoking stramonium at first afforded instantaneous relief, but subsequently failed. The inhalation of chloroform almost invariably relieves the asthmatical paroxysm, but its use is not to be indiscriminately recommended. In B—— the pulsation of the heart can be seen at the epigastrium, indicating,
what is very common in such cases, some dilatation of the right side of the heart, as a consequence of the obstruction in the pulmonary circulation; and what you know of the influence of chloroform on the heart should make you cautious of its administration under such a complication.

It is therefore satisfactory to have other measures in reserve, and in many instances I have found remarkable relief experienced from the use of blotting-paper dipped in a saturated solution of nitrate of potash, dried, and then set fire to on a plate so placed as to expose the patient to the vapour. Whether the efficacy of this measure be owing to empyreumatic bituminous vapour or to nitrogenous fumes, I cannot tell. I can neither explain its remarkable efficacy, in some instances, nor its failure in others; but it is a remedy of real value; and I think I owe the suggestion to Mr. Harrison, of Broughton, near Manchester.

But it is not enough to relieve the paroxysms: you must aim to accomplish permanent amendment, and with this view must not be satisfied till you have rectified every disordered function, and improved to the greatest possible extent the nervous tone of your patient. Above all, endeavour to subdue any accompanying bronchitis. In many instances grain doses of mercurial pill with antimony, when watchfully regulated so as to avoid salivation, and gradually suspended, as the rhonchus moistens, are with this view singularly efficacious. When, however, there is the least threatening of consumption, it is desirable to find a substitute for the mercurial pill, and the combination most similar in effect is probably iodide of potassium mixed with antimony, which latter medicine would seem to have a tendency to direct the influence of the iodide of potassium to the bronchial tubes. B—— has therefore taken a mixture according to the following prescription:—iodide of potassium, three grains; potassio-tartrate of antimonial wine, ten minims; tincture of henbane, fifteen minims; decoction of sarsaparilla, one fluid ounce: make a draught, to be taken three times a day; and the benefit has been obvious; the breathing having become easier, the paroxysms no longer recurring, and the sibilant rhonchus, which was formerly audible during both inspiration and expiration, being confined to the latter, thus showing that the more minute tubes, into which the air was noisily forced by inspiration, have recovered their natural condition.

Is it probable that alum might prove useful as a remedy in asthma? It is almost a specific in lead colic and in hooping-cough—diseases not without analogy to asthma, in the paroxysmal character of the attacks, and perhaps in the correspond-
On the Employment of Mercurials in the Treatment of Typhoid Fever, (Black Sulphuret of Mercury and frictions of Mercurial Ointment,) after M. Serres' method. By M. Becquerel. Translated from the French, with additions, by James Byran, M. D., Prof. of Institutes of Medicine in the Philadelphia College of Medicine.

In 1847, Dr. Serres presented to the Institute a series of memoirs designated to elucidate the nature and treatment of typhoid fever. It is on these two points of the history of this disease that the learned member of the Institute desires again to call the attention of the medical profession, to point out a new method of treatment, destined to prevent the most formidable accidents, to moderate the most dangerous symptoms, and, in fine, to change the malignant typhoid fever into a mild form of disease.

Instructed by the administration of the hospitals, to replace, temporarily, Dr. Serres in the Hospital de la Petié, I have thought that I could not do better than continue his treatment of this fever and to submit it to new experiments. The following is the result:

It is proper to state Dr. Serres' treatment, and the effects obtained. The mercurial treatment consists in the use of the black sulphuret of mercury, internally, (Æthiop's mineral,) in doses which vary from sixty grains to two drachms; and in the external use of mercurial friction on the abdomen, (onguent Napolitain,) in doses which vary from fifteen to sixty grains per diem. This treatment was continued eight, ten, or twelve days, or until the symptoms of the disease ceased.

The following are the results as stated by Dr. Serres in his communication to the Institute: The employment of the black sulphuret of mercury in the above doses, may nearly always be continued eight, ten, or twelve days, before salivation will occur; and when it does take place, it never is so severe as to be dangerous. Mercurial frictions on the abdomen always disperse the sore patches, and rapidly diminish tympanitis of the abdo-
men. Under the combined influence of these two means, the diarrhœa is ameliorated, the frequency of the pulse is diminished, the fever subsides, the headache and delirium are much lessened.

The duration of the disease is not always abridged, it generally continues its usual course, that is to say, it lasts three or four weeks: but it comes without any serious complications, and especially without that adynamic condition which is so dangerous. Such, are, in a few words, the conclusions of the learned physician of La Petié.

Before stating the results which I have obtained in the treatment of fifteen cases of typhoid fever, all very bad cases, and subjected to this treatment, I must add that I have followed closely the above formulary entirely, so that to no other causes can the results obtained by me, more fortunate perhaps than even those of Serres, be attributed. The black sulphuret was used as soon as the patients entered. I commenced with one gramme (about 15½ grains) per day, in powder or in pills made with gum. This amount was given in five or six doses. If the improvement did not commence at the second or third day, I increased the amount up to one and a half grammes, or even to two grammes. I have never exceeded the latter quantity. I suspended its use as soon as convalescence commenced, nor did the intensity of the salivation ever make it necessary to remit the use of the medicine.

Frictions on the abdomen, with the Napolitain ointment, were made of the strength of one gramme of sulphuret to 16 grammes of mercurial ointment in two frictions, with the application of a poultice to favor absorption, one gramme of sulphuret to 24 grammes of mercurial ointment, used in three applications, and, finally, two grammes of black sulphuret to thirty grammes of ointment, also in three applications.

Every two days the abdomen was washed with soap, in order to favor the process of absorption.

The rest of the treatment was, 1st. Ice seltzer water, or lemonade, for drink. 2d. Laxatives or mild clysters where the bowels were constipated. 3d. In adynamic cases, of which there were five, I added to the use of black sulphuret that of musk, in doses of from one to twenty-five or thirty grammes per day. This medicine was discontinued when the delirium and general agitation diminished. Fifteen patients, affected with low typhoid fever, were fully subjected to the effects of the mercurials. There were ten males and five females. The ten males were aged: two of sixteen, two of seventeen, two of eighteen, one of twenty, two of twenty-two, and one of thirty-six years of age. The ages of the five females were as

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follows: one of fifteen, one of eighteen, one of twenty, and two of twenty-one years of age.

The period of life at which this disease usually appears, is a very striking feature in its character. According to Louis and Chomel, of 255 cases, 78 were from fifteen to twenty years, 95 from twenty to twenty-five, 54 from twenty-five to thirty, 22 from thirty to forty, and five only from forty to fifty years of age, while but one was above fifty. [As to the cause of the disease, may it not be connected with certain evolutions of the system at this time? May not the mucous diathesis which so commonly exists under the circumstances in which this fever is developed, be, if not a cause of the disease, an aggravating circumstance? May not the general depravation of the nutritive functions, the blood and the tissues, be traced more or less to this depraved condition of the mucous membranes, thus developed? Does not both the prophylactic and curative mode of treatment, usually found effective, add strength to this belief, viz. change of air, diet, and occupation, with the use of nitrate of silver, oil of turpentine, or, as in the above cases, mercury?—J. B.]

The ten males, continues our author, affected with typhoid fever, presented the following forms:—four, the ordinary abdominal form, with stupor, cephalalgia, &c.; five, the adynamic form, of the lowest kind; one, the ataxic form, with delirium and general agitation. The five females presented twice the ataxic form, once the ataxo-adynamic; once, the adynamic; and once, the ordinary abdominal form. These fifteen cases entered the hospital some time after the first attack, having been probably without any treatment at their homes. In all, the treatment was commenced on the day after they entered: the following are the effects it produced on the principal symptoms, and the general disease.

**The Fever.**—Under the influence of the first doses of the black sulphur and of the frictions, the skin always became cooler, less dry, and in some cases, it became moist, or perspired. At the same time, the pulse diminished in force and frequency; this occurred even in the only case of death that took place, which was from perforation of the intestine.

**The Tongue.**—At first dry, rough, and the gums and lips dark and sooty—continued thus until the advent of salivation. Of the fifteen cases, salivation took place in twelve; in two it did not occur, and the patients recovered very well: in these two cases, the tongue did not become moist until the cessation of the fever. In the case of perforation of the intestine, the tongue remained dry to the end. [This, however, is not always the case, as we well know. We well remember a case that
was pronounced, from the general improvement of the symptoms, the moisture of the tongue among them, convalescent, by a distinguished clinical teacher of our city, which, however, was brought in on the next clinic day dead. A perforation having taken place in the small intestine, which caused death very suddenly. This, in fact, is the great danger in the disease, and it occurs not unfrequently when least expected.—J. B. J.

In the twelve cases where salivation was developed, it took place twice on the sixth day of the treatment; three times on the seventh day; four times on the eighth day; once on the twelfth; and once on the thirteenth. Except one case, in which the salivation and swelling of the gums were intense, and continued for twelve days, it was in all the rest very light and unimportant. In no other case did it continue beyond four or five days, and required no medical treatment. We may, in reference to the salivation, establish the following propositions:

1. In cases of typhoid fever in its ordinary form of medium intensity, salivation takes place rapidly, it is decided, and continues during a considerable portion of the time of convalescence; in general, it announces the occurrence of the latter.

2. In more serious cases, salivation occurs at a later period; it is in general less severe, and continues only during the first days of convalescence; it precedes by a few days the cessation of the fever, and constitutes a sign which indicates an early cure. Sometimes, however, it does not occur until the instant that the fever ceases.

3. In extremely low cases, salivation is induced with great difficulty; and until it takes place, the case must be considered as dangerous. It is in these cases that we must insist for a long time on large doses of the black sulphuret and mercurial frictions.

4. In some cases of medium intensity, salivation is not induced at all. The treatment was continued in each of the fifteen cases, not only until the supervention of salivation, but to the cessation of the fever, and the amelioration of all the symptoms.

The Tympanitic Abdomen, except in the case of perforation of the intestine, always diminished rapidly, even from the commencement of the treatment; this result must be attributed to the combined influence of the black sulphuret.

In reference to the stools, in the fifteen patients, there were two affected with constipation, which clysters alone removed. The black sulphuret was ineffectual in reliving the system. In two other cases, the black sulphuret produced a diarrhœa, which did not exist before, and which since its employment produced
one or two stools per day. The diarrhœa, which was always ushered in by five or six liquid stools, diminished at once when the black sulphuret was taken. In eight cases, finally, the diarrhœa was neither augmented or diminished; it continued its course, and diminished only as the other symptoms subsided.

Whenever the mercurial frictions were used on a part where the sore spots existed (abdomen,) they disappeared in from twenty-four to thirty-six hours; none remained but those on the lower part of the thorax, on the chest, or elsewhere.

In relation to the cephalalgia, no appreciable effect was produced in those cases; it did present a very severe symptom.

Where delirium existed pretty severe (four patients,) musk, in doses of 25 to 30 grains, with black sulphuret, was given, until this symptom ceased. In these four cases the improvement was rapid, and five days was the longest period of its existence. In one patient, in which cold water on the head was applied for three days, the delirium was very violent, and we were obliged to resort to the straight waistcoat.

The expression of the face did not disappear until the other symptoms had diminished; the black sulphuret acted upon it only secondarily.

The same may be said of the cough, the sibilant rûle; there were, for the rest, no serious symptoms connected with the chest. The patient who died on account of intestinal perforation must be excepted from this list, having had, when he entered, symptoms of severe bronchial engorgement. The mercurials did not affect these symptoms, except as they affected the general disease. In no case was there serious hæmorrhage.

The duration of the treatment was, in four cases seven days, in three eight, in one nine, in three ten, in one twelve, in, one fifteen, one sixteen, and one seventeen. The medium duration was ten days.

The minimum of the black sulphuret used in the treatment was seven grammes (a little over 15 grs. each), the maximum was 24 grammes. The minimum of mercurial ointment used was 112 grammes, and the maximum 360 grammes; the medium was 12 gr., 30 in each case, and 200 grammes of Napolitan ointment.

The whole duration of the disease varied somewhat. The table added to my memoir gives the following results:—one case twelve days, two thirteen, three fourteen, three fifteen, one sixteen, one eighteen, one twenty, and one twenty-three days. The medium duration of the fever was sixteen days.

The patient that died of the perforation was a male of 36 years, strong and robust, who was admitted on the eighteenth day of the disease; the symptoms of the typhoid fever were
marked by those of a very severe bronchitis, which for the first few days entirely concealed the principal disease; he was treated during five days, from the 8th to the 12th, by two general bleedings, ipecacuanha, and a cathartic. The bronchial engorgement, improved by this energetic treatment, precluded the use of the mercurials, either internal or external, before the twelfth day; it produced happy results as usual. The symptoms improved, and he was getting better, when, without known cause, the patient, on the nineteenth day, was seized with symptoms of acute peritonitis, and died on the twentieth day. The autopsy detected the intestinal perforation.

Duration of the convalescence.—In all the cases it was simple, without complication or accident. In one female there was an escar on the sacrum, which required a month to get well. With this exception, the patients remained in the hospital from eight to twenty-three days.

[In reference to the duration of the disease, we quote the following from Dr. Wood's "Practice": "Even the mildest cases run on to the fourteenth and fifteenth day: those of a severer character seldom become convalescent before the end of the third or fourth week: and not unfrequently we witness recoveries even after the sixth week. The average duration of cases may be stated at from twenty to thirty days. The disease seldom lasts longer than sixty days, though it has no fixed limits." This statement does not agree with that of Becquerel, who places the average at sixteen days. Doubtless, there is much difference in this respect between hospital and private practice. The latter can never be altogether safe for the general practitioner to follow, for several reasons. 1. The patients are frequently paupers and broken-down constitutions, either from their poverty or their vices. 2. The atmospheric and other conditions of a general or fever hospital can never be equal in salubrity to those of a respectable private residence. Unfortunately for the general practitioner, especially in our country, the writers on these and kindred diseases are mostly hospital physicians. It is much to be regretted that our country practitioners do not more frequently write out the result of their ample experience. We quote with pleasure the following remarks made by a practitioner of the latter class. He is not alone in recommending opium for these cases of disease.

"For the last twelve years, opium, in four and five grain doses, has been my main remedy in all forms of typhoid fever. In fact, when I use it at all in fever it is in four or five grain doses. I claim to have demonstrated beyond all reasonable doubt, by a long and careful observation and experience, that while the maximum doses of the schools are of doubtful utility,
and often prove injurious in fever, by increasing the dryness of the skin, aggravating the pain in the head, &c., &c., a five grain dose will, nineteen times in twenty, produce free perspiration and relieve every unpleasant symptom. The notion that so generally prevails among the profession that opium cannot be used to advantage in fever while there is determination to the brain, is certainly erroneous, if it is given in the doses which I recommend, unless there is actual inflammation of the membranes, and cases of this kind are extremely rare, in my opinion, Dr. Clutterbuck to the contrary notwithstanding.” Dr. A. G. Henry, Boston Med. and Surg. Journal, vol. xii., p. 13.

Professor J. K. Mitchell, of this city, relies chiefly on nitrate of silver, which he uses until the stools assume the “metallic lustre” produced by this remedy. Those who are familiar with Dr. M.’s practice know that he is very successful in his treatment of typhoid fever by the-nitrate. On the other hand, a respectable country practitioner, Dr. John L. Altee, of Lancaster, Pa., says: “Should the fever be prolonged beyond the third or fourth day, and its character become fairly established, I then resort to the acetate of lead, in doses of from one to three grains, carefully and perfectly dissolved in a few drops of vinegar and half an ounce of river or distilled water, and given every two, three, or four hours, according to the urgency of the symptoms; and the treatment is steadily persevered in as long as the enteric symptoms continue. He adds: “I do not know that I have ever lost a patient where the case was treated from the commencement as above indicated.” (Wood’s Practice.) It must not be forgotten that in all these cases the bowels are first moved, and their contents more or less evacuated. My late friend, Dr. Parish, depended almost entirely on the use of the oil of turpentine, together with carbonate of ammonia and neutral mixture. He generally formed what he denominated his “Turpentine Julep,” by rubbing it up with gum acacia, loaf sugar, and water, adding sometimes tincture of opium, especially when the oil disturbed the bowels. This practice is followed pretty generally by his pupils, who are now the prominent writers and practitioners of our city. For ourselves, we have resorted to all these measures, and find that what Hippocrates calls the “temperament” of the year or season, or some other cause, influences very much the effects of these as well as other remedies. The last cases of severe typhoid fever which we treated, nothing was so effectual, under proper restrictions, as good port wine, of which the patients consumed about a pint daily, sometimes more.—J. B.]—N. Y. Journal of Medicine.
Pathological Appearances in cases of Strangulation or Hanging, Apoplexy, &c., (from Professor J. H. Bennet's Clinical Lectures.)—The Pathological Laws which Regulate Diseased Functions of the Nervous System.—For the purpose of diagnosis and treatment, it is a matter of great importance to attend to the following generalizations:

(1.) The amount of fluids within the cranium must always be the same so long as its osseous walls are capable of resisting the pressure of the atmosphere. There are few principles in medicine of greater practical importance than the one we are about to consider—the more so, as many able practitioners have lately abandoned their former opinions on this head, and on what I consider to be very insufficient grounds. On this point, therefore, I cannot do better than condense and endeavour to put clearly before you the forcible arguments of the late Dr. John Reid, with such other considerations as have occurred to myself.

That the circulation within the cranium is different from that in other parts of the body, was first pointed out by the second Monro. It was tested experimentally by Dr. Kellie of Leith, ably illustrated by Dr. Abercrombie, and successfully defended by Dr. John Reid. The views adopted by these distinguished men were, that the cranium forms a spherical bony case, capable of resisting the atmospheric pressure, the only openings into it being the different foramina by which the vessels, nerves, and spinal cord pass. The encephalon, its membranes and blood-vessels, with perhaps a small portion of the cerebro-spinal fluid, completely fill up the interior of the cranium, so that no substance can be dislodged from it without some equivalent in bulk taking its place. Dr. Monro used to point out that a jar, or any other vessel similar to the cranium, with unyielding walls, if filled with any substance, cannot be emptied without air or some other substance taking its place. To use the illustration of Dr. Watson, the contents of the cranium are like beer in a barrel, which will not flow out of one opening, unless provision be made at the same time that air rushes in. The same kind of reasoning applies to the spinal canal, which, with the interior of the cranium, may be said to constitute one large cavity, incompressible by the atmospheric air.

Before proceeding further, we must draw a distinction between pressure on, and compression of, an organ. Many bodies are capable of undergoing a great amount of pressure without undergoing any sensible decrease in bulk. By compression must be understood, that a substance occupies less space from the application of external force, as when we squeeze a sponge,
or compress a bladder filled with air. Fluids generally are not absolutely incompressible, yet it requires the weight of one atmosphere, or fifteen pounds on the square inch, to produce a diminution equal to \( \frac{1}{1000000} \)th part of the whole. Now this is so exceedingly small a charge upon a mass equal in bulk to the brain, as not to be appreciable to our senses. Besides, the pressure on the internal surface of the blood-vessels never exceeds ten or twelve pounds on the square inch, during the most violent exertion, so that, under no possible circumstances, can the contents of the cranium be diminished even the \( \frac{1}{1000000} \)th part. When the brain is taken out of the cranium, it may, like a sponge, be compressed, by squeezing fluid out of the blood-vessels; but during life, surrounded, as it is, by unyielding walls, this is impossible. For let us, with Abercrombie, say that the whole quantity of blood circulating within the cranium is equal to 10; 5 in the veins, and 5 in the arteries: if one of these be increased to 6, the other must be diminished to 4, so that the same amount, 10, is always preserved. It follows that, when fluids, are effused, blood extravasated, or tumours grow, a corresponding amount of fluid must be pressed out, or of brain absorbed, from the physical impossibility of the cranium holding more matter. At the same time, it must be evident that an increased or diminished amount of pressure may be exerted on the brain, proportioned to the power of the heart's contraction, the effect of which will be, not to alter the amount of fluids within the cranium, but to cause, using the words of Abercrombie, "a change of circulation" there.

Dr. Kellie performed numerous experiments on cats and dogs, in order to elucidate this subject. Some of these animals were bled to death by opening the carotid or femoral arteries; others by opening the jugular veins. In some the carotids were first tied, to diminish the quantity of blood sent to the brain, and the jugulars were then opened, with the view of emptying the vessels of the brain to the greatest possible extent; while, in others, the jugulars were first secured, to prevent as much as possible the return of the blood from the brain, and one of the carotids was then opened. He inferred, from the whole inquiry, which was conducted with extreme care, "That we cannot, in fact, lessen, to any considerable extent, the quantity of blood within the cranium by arteriotomy or venesection; and that when, by profuse hemorrhages destructive of life, we do succeed in draining the vessels within the cranium of any sensible portion of red blood, there is commonly found an equivalent to this spoliation in the increased circulation or effusion of serum, serving to maintain the plenitude of the cranium."
Dr. Kellie made other experiments upon the effects of position immediately after death from strangulation or hanging. He also removed a portion of the unyielding walls of the cranium in some animals, by means of a trephine, and then bled them to death; and the differences between the appearances of the brain in these cases, and in those where the cranium was entire, were very great. One of the most remarkable of these differences was its shrunken appearance in those animals in which a portion of the skull was removed, and the air allowed to gravitate upon its inner surface. He says: “The brain was sensibly depressed below the cranium, and a space left, which was found capable of containing a teaspoonful of water.”

It results, from these inquiries, that there must always be the same amount of fluids within the cranium so long as it is uninjured. In morbid conditions these fluids may be blood, serum, or pus; but in health, as blood is almost the only fluid present (the cerebro-spinal fluid being very trilling), its quantity can undergo only very slight alterations. There are many circumstances, however, which occasion local congestions in the brain, and consequently unequal pressure on its structure, in which case another portion of its substance must contain less blood, so that the amount of the whole, as to quantity, is always preserved. These circumstances are mental emotions, hemorrhages, effusions of serum, and morbid growths. Some congestions, or local hyperæmias, in themselves constitute morbid conditions; and nature has, to a great extent, provided against their occurrence, under ordinary circumstances, by the tortuosity of the arteries and the cerebro-spinal fluid, described by Magendie.

The views now detailed had been very extensively admitted into pathology, when Dr. Burrows, of St. Bartholomew’s Hospital, endeavoured to controvert them, first in the Lumleian Lectures of 1843, and subsequently in a work published in 1846, entitled, “On Disorders of the Cerebral Circulation, and on the Connection between Affections of the Brain and Diseases of the Heart.” Dr. Burrows, however, evidently formed the most confused notions of the doctrine we are advocating; for, instead of stating it as propounded by its authors, he actually misrepresented it, as Dr. Reid pointed out. Thus, he is always combatting the idea that blood-letting, position, strangulation, &c., cannot affect the blood in the brain; whereas the real proposition is, that they cannot alter the fluids within the cranium. By thus confounding blood with fluid, and brain with cranium, he has only contrived to overthrow a theory of his own creation.

Dr. Burrows has brought forward several observations and experiments, which he considers opposed to the theory now
advocated. His facts are perfectly correct. I myself have repeated his experiments on rabbits, and can confirm his descriptions. It is the inferences he draws from them that are erroneous. For the paleness which results from hemorrhage, and the difference observable in the color of the brain, when animals, immediately after death, are suspended by their ears or by their heels, is explicable by the diminished number of coloured blood particles in the one case, and by their gravitation downwards in the other. That the amount of fluid within the cranium was in no way affected, is proved by the plump appearance of the brains figured by Dr. Burrows, and the total absence of that shrunken appearance so well described by Dr. Kellie.

Neither does our observation of what occurs in asphyxia or apnoëa oppose the doctrine in question, as Dr. Burrows imagines, but rather confirms it. On this point the following observations by Dr. John Reid are valuable. He says: "If any circumstance could produce congestion of the vessels within the cranium, it would be that of death by hanging; for then the vessels going to and coming from the brain are, with the exception of the vertebral arteries, compressed and then obstructed. These two arteries, which are protected by the peculiarity of their course through the foramina of the transverse processes of the cervical vertebrae, must continue for a time to force their blood upon the brain, while a comparatively small quantity only can escape by the veins. Indeed, the greater quantity of blood carried to the encephalon by the vertebrae returns by the internal jugulars, and not by the vertebral veins, which are supplied from the occipital veins of the spinal cord; and the anastomoses, between the cranial and vertebral sinuses, could carry off a small quantity of the blood only, transmitted along such large arteries as the vertebrae. And yet it is well known that there is no congestion of the vessels within the cranium after death by hanging, however gorged the external parts of the head may be by blood and serum." This is admitted by Dr. Burrows, although he endeavors to get rid of so troublesome a fact by a gratuitous hypothesis, which will not bear a moment's examination, but for the refutation of which I must refer to the works of Dr. Reid.*

On the whole, whether we adopt the expressions of local congestion, of change of circulation within the cranium (Abercrombie), or of unequal pressure (Burrows), our explanation of the pathological phenomena may be made equally correct, because each term implies pretty much the same thing. But if

* Monthly Journal, August, 1846: Physiological, Anatomical, and Pathological Researches, No. XXV.
we imagine that venesection will enable us to diminish the amount of blood in the cerebral vessels, the theory points out that this is impossible, and that the effects of bleeding are explained by the influence produced on the heart, the altered pressure on the brain, exercised by its diminished contractions, and the change of circulation within the cranium thereby occasioned.

I have entered somewhat fully into this theory, because, independent of its vast importance in a practical point of view, it is one which originated in, and has always been maintained by, the Edinburgh School of Medicine. Singular to say, notwithstanding the obvious errors and fallacies in Dr. Burrows' work, no sooner did it appear than the whole medical press of England and Ireland adopted its conclusions, and even Dr. Watson, in the last edition of his excellent work, also abandoned the theory of Monro, Kelly, and Abercrombie. But so far is this theory, concerning the circulation within the cranium, from being shaken by the attack of Dr. Burrows, that it may be said now to stand on a firmer basis than ever, owing to that attack having drawn forth the convincing reasoning and unanswerable arguments of so sound an anatomist, physiologist, and pathologist as the late Dr. John Reid.

(2.) All the functions of the nervous system may be increased, perverted, or destroyed, according to the degree of stimulus or disease operating on its various parts. Thus, as a general rule, it may be said that a slight stimulus produces increased or perverted action; whilst the same stimulus, long continued or much augmented, causes loss of function. All the various stimuli, whether mechanical, chemical, electrical, or psychical, produce the same effects, and in different degrees. Circumstances influencing the heart's action, stimulating drinks or food, act in like manner. Thus, if we take the effects of alcoholic drink, for the purpose of illustration, we observe that, as regards combined movements, a slight amount causes increased vigour and activity in the muscular system. As the stimulus augments in intensity, we see irregular movements occasioned, staggering, and inability of directing the limbs. Lastly, when the stimulus is excessive, there is complete inability to move, and the power of doing so is temporarily annihilated. With regard to sensibility and sensation, we observe cephalalgia, tingling, and heat of skin, tinnitus aurium, confusion of vision, museae volitantes, double sight, and lastly, complete insensibility and coma. As regards intelligence, we observe at first rapid flow of ideas, then confusion of mind, delirium, and lastly, sopor and perfect unconsciousness. In the same manner pressure, mechanical irritation, and the various organic diseases produce
augmented, perverted, or diminished function, according to the intensity of the stimulus applied, or amount of structure destroyed.

Thus it has been shown, that excess or diminution of stimulus, too much or too little blood, very violent or very weak cardiac contractions, and inflammation or extreme exhaustion, will, so far as the nervous functions are concerned, produce similar alterations of motion, sensation, and intelligence. Excessive hemorrhage causes muscular weakness, convulsions, and loss of motor power, perversions of all the sensations, and lastly, unconsciousness from syncope. Hence the general strength of the frame cannot be judged of by the nervous symptoms, although the treatment of these will be altogether different, according as the individual is robust or weak, has a full or small pulse, &c. These similar effects on the nervous centres from apparently such opposite exciting causes, can, it seems to me, only be explained by the peculiarity of the circulation previously noticed. A change of circulation within the cranium takes place, and whether arterial or venous congestion occurs, pressure on the organ is equally the result. The importance of paying attention to this point in the treatment must be obvious.

(3.) *The seat of the disease in the nervous system influences the nature of the phenomena or symptoms produced.* It is a matter of very great importance to ascertain how far certitude in diagnosis may be arrived at, and the seat of the disease ascertained. On this subject it may be affirmed that, although clinical observation combined with pathology has done much, more requires to be accomplished. As a general rule, it may be stated that disease or injury of one side of the encephalon, above the decussation in the medulla oblongata, especially influences the opposite side of the body; whilst, if the spinal cord be affected below the decussation, the influence produced is not crossed, but direct. It is said that some very striking exceptions have occurred to this rule, but these at any rate are remarkably rare. Besides, it has always appeared to me probable that, inasmuch as extensive organic disease, if occurring slowly, may exist without producing symptoms, whilst it is certain most important symptoms may be occasioned without organic disease, even these few exceptional cases are really not opposed to the general law. Then, as a general rule, it may be said that diseases of the brain proper are more especially connected with perversion and alteration of the intelligence; whilst disease of the cranial portion of the spinal cord and base of the cranium is more particularly evinced by alterations of sensation and motion. In the vertebral portion of the
cord, the intensity of pain and of spasm, or want of conducting power, necessary to sensation and voluntary motion, indicates the amount to which the motor and sensitive columns are affected. Further than this we can scarcely generalize with prudence, although there are some cases, as we shall subsequently see, where careful observation has enabled us to arrive at more positive results.

The fatality of lesions affecting various parts of the nervous centres varies greatly. Thus the hemispheres may be extensively diseased, often without injury to life, or even permanent alteration of function. Convulsions and paralysis are the common results of disease of the ganglia, in the cranial portion of the cord. The same results from lesion of the pons Varolii. But this, if it affect the medulla oblongata, where the eighth pair originates, or injury to this centre itself, is almost always immediately fatal.

(4.) The rapidity or slowness with which the lesion occurs influences the phenomena or symptoms produced. It may be said, as a general rule, that a small lesion, for instance a small hemorrhagic extravasation, occurring suddenly, and with force, produces, even in the same situation, more violent effects than a very extensive organic disease which comes on slowly. Here, however, much will depend upon the seat of the lesion. Very extraordinary cases are on record, where large portions of the nervous centres have been much disorganized, without producing anything like such violent symptoms as have been occasioned at other times by a small extravasation in the same place. Here again the nature of the circulation within the cranium offers the only explanation, for the encephalon must undergo a certain amount of pressure, if no time be allowed for it to adapt itself to a foreign body; whereas any lesion coming on slowly enables the amount of blood in the vessels to be diminished according to circumstances, whereby pressure is avoided.

(5.) The various lesions and injuries of the nervous system produce phenomena similar in kind. The injuries which may be inflicted on the nervous system, as well as the morbid appearances discovered after death, are various. For instance, there may be an extravasation of blood, exudation of lymph, a softening, a cancerous tumour, or tubercular deposit, and yet they give rise to the same phenomena, and are modified only by the circumstances formerly mentioned, of degree, seat, suddenness, &c. Certain nervous phenomena also are of a paroxysmal character, whilst the lesions supposed to occasion them are stationary or slowly increasing. It follows that the effects cannot be explained by the nature of the lesions, but to
something which they all have in common; and this, it appears to me, may consist of—1st, Pressure with or without organic change; 2d, More or less destruction or disorganization of nervous texture. Further, when we consider that the same nervous symptoms arise from irregularities in the circulation from increased as well as diminished action, sometimes when no appreciable change is found, as well as when disorganization has occurred, the theory of local congestions in the nervous centres seems to me the most consistent with known facts. That such local congestions do frequently occur during life, without leaving traces detectable after death, is certain; whilst the occurrence of molecular changes, or other hypothetical conditions which have been supposed to exist, have never yet been shown to take place under any circumstances.—[Amer. Journ. of Med. Sciences.

T. R. B.

As many of our readers have doubtless met with cases, to a certain degree similar, we place before them the following from the Medical Examiner.—Ed.

Account of a man who lives upon large quantities of raw flesh.
In a letter from Dr. Johnston, Commissioner of Sick and Wounded Seamen, to Dr. Blane.

SOMERSET PLACE, Oct. 18, 1798.

My Dear Sir,—Having in August and September last been engaged in a tour of public duty, for the purpose of selecting from among the prisoners of war such men as, from their infirmities, were fit objects for being released without equivalent, I heard, upon my arrival at Liverpool, an account of one of those prisoners being endowed with an appetite and digestion so far beyond anything that had ever occurred to me, either in my observation, reading, or by report, that I was desirous of ascertaining the particulars of it by ocular proof or undeniable testimony. Dr. Cochrane, Fellow of the College of Physicians of Edinburgh, and our medical agent at Liverpool, is fortunately a gentleman upon whose fidelity and accuracy I could perfectly depend, and I requested him to institute an inquiry upon this subject during my stay at that place. I enclose you an attested copy of the result of this—and as it may probably appear to you, as it does to me, a document containing facts extremely interesting, both in a natural and medical view, I will beg you to procure its insertion in some respectable periodical work.

Some farther points of inquiry respecting this extraordinary person having occurred to me since my arrival in town, I sent them in the form of queries to Dr. Cochrane, who has obligingly
returned satisfactory answers. These I send along with the above mentioned attested statements, to which I beg you to subjoin such reflections as may occur to you on this subject.

I am, my dear Sir, your most obedient humble servant,

J. Johnston,

To Gilbert Blane, M. D., F. R. S., and one of the Commissioners of Sick and Wounded Seamen.

Charles Demery, a native of Benche, on the frontiers of Poland, aged 21, was brought to the prison of Liverpool, in February, 1799, having been a soldier in the French service on board the Hoche, captured by the squadron under the command of Sir John B. Warren, off Ireland.

He is one of nine brothers, who, with their father, have been remarkable for the voraciousness of their appetites. They were all placed early in the army—and the peculiar craving for food with this young man, began at thirteen years of age.

He was allowed two rations in the army, and by his earnings or the indulgence of his comrades, procured an additional supply.

When in the camp, if bread or meat was scarce, he made up the deficiency by eating four or five pounds of grass daily—and in one year, devoured 174 cats (not their skins) dead or alive—and says he had several severe conflicts in the act of destroying them, by feeling the effects of their torments on his face and hands—sometimes he killed them before eating, but when very hungry he did not wait to perform this humane office.

Dogs and rats equally suffered from his merciless jaws—and if much pinched by famine, the entrails of animals indiscriminately became his prey. The above facts are attested by Picard, a respectable man, who was his comrade in the same regiment on board the Hoche, and is now present—and who assures me, he has often seen him feed on those animals.

When the ship on board of which he was, had surrendered after an obstinate action, finding himself, as usual, hungry, and nothing else in his way but a man's leg, which was shot off; lying before him, he attacked it greedily, and was feeding heartily, when a sailor snatched it from him, and threw it overboard.

Since he came to this prison, he has eat one dead cat and about twenty rats. But what he delights most in, is raw meat, beef or mutton, of which though plentifully supplied by eating the rations of ten men daily,* he complains he has not the same

* The French prisoners of war are at this time, maintained at the expense of their own nation, and are each allowed the following daily ration—twenty-six ounces of bread, half a pound of beef, half a pound of greens, two ounces of butter, or six ounces of cheese.
quantity, nor indulged in eating so much as he used to do, when in France.

He often devours a bullock's liver, raw, three pounds of candles and a few pounds of raw beef in one day, without tasting bread or vegetables, washing it down with water, if his allowance of beer is expended.

His subsistence at present, independent of his own rations, arises from the generosity of the prisoners, who give him a share of their allowance. Nor is his stomach confined to meat, for when in the hospital, where some of the patients refused to take their medicines, Demery had no objection to perform this for them—and his stomach never rejected anything, as he never vomits, whatever be the contents, or however large.

Wishing fairly to try how much he actually could eat in one day; on the 7th of September, 1799, at 4 o'clock in the morning, he breakfasted on four pounds of raw cow's udder—at half past 9, in presence of Dr. Johnston, commissioner of sick and wounded seamen, Admiral Child and his son, Mr. Foster agent for prisoners, and several respectable gentlemen, he exhibited his powers as follows: There was set before him five pounds of raw beef, and twelve tallow candles of a pound weight, and one bottle of porter—these he finished by half past 10 o'clock. At 1 o'clock there was again put before him, five pounds of beef, and one pound of candles, with three bottles of porter, at which time he was locked up in the room, and sentries placed at the windows to prevent his throwing away any of his provisions. At 2 o'clock, when I again saw him with two friends, he had nearly finished the whole of the candles, and great part of the beef, but had neither evacuation by vomiting, stool, or urine; his skin was cool and pulse regular, and in good spirits. At a quarter past 6, when he was to be returned to his prison, he had devoured the whole, and declared he could have eat more, but from the prisoners without telling him we wished to make some experiments on him he began to be alarmed. It is also to be observed, that the day was hot, and not having his usual exercise in the yard, it may be presumed he would otherwise have had a better appetite. On recapitulating the whole consumption of this day, it stands thus:—raw cow's udder, 4 lbs.; raw beef, 10; candles, 2. Total, 16 lbs. besides 5 bottles of porter.

The eagerness with which he attacks his beef when his stomach is not gorged, resembles the voracity of a hungry wolf, tearing off and swallowing them with canine greediness. When his throat is dry from continued exercise, he lubricates it by stripping the grease off the candle between his teeth, which he generally finishes at three mouthfuls, and wrapping the wick
like a ball (string and all) sends it after at a swallow. He can, when no choice is left, make shift to dine on immense quantities of raw potatoes or turnips; but from choice would never desire to taste bread or vegetables. He is in every respect healthy, his tongue clean, and his eyes lively.

After he went to the prison, he danced, smoked his pipe, and drank a bottle of porter—and, by four next morning, he awoke with his usual ravenous appetite—which he quieted by a few pounds of raw beef.

He is six feet three inches high, pale complexion, grey eyes, long brown hair, well made but thin, his countenance rather pleasant, and is good tempered.

**Destauban**, French Surgeon.
**Le Fournier**, Steward of the Hospital.
**Revet**, Commissaire de la Prison.
**Le Flem**, Soldat de la ser Demi Brigade.

**Thomas Cochrane**, M. D., Inspector and Surgeon of the Prison, and Agent, &c., for sick and wounded Seamen.
**Liverpool, Sept. 9th, 1799.**

A true copy,

Clerk in the office for sick and wounded Seamen.

**Queries and Answers.**

1. What are the circumstances of his sleep and perspiration?
   He gets to bed about 8 o'clock at night, immediately after which he begins to sweat, and that so profusely as to be obliged to throw off his shirt. He feels extremely hot, and in an hour or two after he goes to sleep, which lasts until one in the morning, after which he always feels himself hungry, even though he had laid down with a full stomach. He then eats bread or beef, or whatever provision he may have reserved through the day; and if he has none, he beguilés the time in smoking tobacco. About 2 o'clock he goes to sleep again, and awakes at 5 or 6 o'clock in the morning in a violent perspiration, with great heat. This quits him on getting up; and when he has laid in a fresh cargo of raw meat (to use his own expression) he feels his body in a good state. He sweats while he is eating; and it is probable owing to this constant propensity to exhalation from the surface of the body, that his skin is commonly found to be cool.

2. What is his heat by the thermometer?
   I have often tried it, and found it to be of the standard temperature of the human body. His pulse is now 84, full and regular.

3. Can this ravenous appetite be traced higher than his father?
He knew nothing of his ancestors beyond his father. When he left the country, eleven years ago, his father was alive, aged about 50, a tall, stout man, always healthy; and he can remember he was a great eater, but was too young to recollect the quantity, but that he eat his meat half boiled. He does not recollect that either himself, or his brothers, had any ailment, excepting the small pox, which ended favorably with them all. He was then an infant. His face is perfectly smooth.

4. Is his muscular strength greater or less than that of other men of his time of life?

Though his muscles are pretty firm, I do not think they are so full or plump as those of most other men. He has, however, by his own declaration, carried a load of 300 weight of flour in France, and marched 14 leagues in a day.

5. Is he dull or intelligent?

He can neither read nor write, but is very intelligent and conversable, and can give a distinct and consistent answer to any question put to him. I have put a variety at different times and in different shapes, tending to throw all the light possible on his history, and never found that he varied, so that I am inclined to believe that he adheres to the truth.

6. Under what circumstances did his voracious disposition first come on?

It came on at the age of thirteen, as has been already stated. He was then in the service of Prussia at the siege of Thionville; they were at that time much straightened for provisions, and as he found this did not suit him, he deserted into the town. He was conducted to the French General, who presented him with a large melon, which he devoured, in and all, and then an immense quantity and variety of other species of food, to the great entertainment of that officer and his suite. From that time he has preferred raw to dressed meat; and when he eats a moderate quantity of what has been roasted or boiled, he throws it up immediately. What is stated above, therefore, respecting his never vomiting, is not to be understood literally, but imports merely that those things which are most nauseous to others, had no effect upon his stomach.

There is nothing farther to remark, but that since the attested narrative was drawn up, he has repeatedly indulged himself in the cruel repasts there described, devouring the whole animal, except the skin, bones, and bowels; but this has been put a stop to, on account of the scandal it justly excited.

In considering this case, it seems to afford some matters for reflection, which are not only objects of considerable novelty and curiosity, but interesting and important, by throwing light on the process by which the food is digested and disposed of.
Monstrosity and disease, whether in the structure of parts or in the functions of appetite, illustrate particular points of the animal economy, by exhibiting them in certain relations in which they are met with in the common course of nature. The power of the stomach in so quickly dissolving, assimilating and disposing of the aliment in ordinary cases, must strike every reflecting person with wonder, but the history of this case affords a more palpable proof, and more clear conception of these processes, just as objects of sight become sensible and striking, when viewed by a magnifying glass, or when exhibited on a larger scale.

The facts here set forth, tend also to place in a strong light, the great importance of the discharge by the skin, and to prove that it is by this outlet, more than by the bowels, that the excrementitious parts of the aliment are evacuated; that there is an admirable co-operation established between the skin and the stomach, by means of that consent of parts so observable; and so necessary, in the other functions of the animal economy; and that the purpose of aliment is not merely to administer to the growth and repair of the body, but by its bulk and peculiar stimulus to maintain the play of the organs essential to life.

Large doses of Sub. Nit. Bismuth in Diarrhoea which succeeds Typhoid Fever.

Diarrhoea being at first produced by a lesion of the glands of Peyer, and by an irritable condition of the mucous membrane of the intestines, it would be chimerical at this period to attempt to check it; and even if it were checked it would be without advantage, and even dangerous to the patient; besides, the constipation which is found in some forms of this disease is far from being a favorable symptom. The utility of alvine evacuations then should not be doubted, purgatives having the property, if not to abridge its course, at least to prevent, and to render less intense the complications with other organs. But though the diarrhoea, when it confines itself to certain limits, presents nothing peculiar in the beginning, should not pass unnoticed beyond a certain period, during convalescence.

It sometimes happens that after a number of days the disease loses its intensity: the fever diminishes, the appetite appears, the tongue becomes moist, the face becomes natural, the bowels indolent, without meteorism, and nevertheless the stools remain liquid and frequent, so that it would seem necessary to nourish the patient, were it not feared by so doing the diarrhoea would be increased, or enteritis established. On the other hand, during convalescence, after the patient has passed the
most dangerous period of the disease, the alimentary canal not being accustomed to the contact of the food, the diarrhoea reappears, and it is with the greatest difficulty that the lightest and most digestible food can be borne. It is at this period of typhoid fever that the good effects of sub. nit. bismuth is seen.

M. Monneret first noticed in this journal the remarkable effects of large doses of sub. nit. bismuth in cholériform diarrhoea and in that of children. We are not aware that this physician used it in the diarrhoea of typhoid fever; but we are certain of the good effects of it in the practice of M. Briquet at La Charité and at the Hôtel Dieu. We report the following case, which shows the period of the disease at which the remedy may be used, and the circumstances which render its effects most sure.

Case.—Dorville, 29 years of age, entered the Hôtel Dieu on the 26th January last. This woman, although of a feeble constitution, thin and delicate, enjoyed good general health, when about the 5th or 6th of January, she felt pain about the umbilicus, which soon spread over the whole of the abdomen, intense fever, cephalalgia and desire to vomit. She was greatly prostrated, mentally and physically; face altered and yellowish; cheeks colored; the mucous membrane of the buccal cavity injected; tongue gluey; thirst, anorexia, nausea; borborygmus in various parts of the abdomen; pains above the umbilicus; superior portion of abdomen rather tense; stools composed of greenish matter, with whitish granules; some rhonchus about the chest; buzzing in the ears; giddiness as soon as the patient sat up; pulse 116, weak; skin hot; no lenticular spots nor headache; there was besides diminution of sonorousness on the left side, with feeble respiration and ringing of the voice at this point.

Though some of the principal symptoms of typhoid fever were absent in this case, there were still enough to form an immediate diagnosis, and two days after, it was confirmed by the appearance of the lenticular spots. The feeble condition of the patient induced M. Aran to adopt a mild treatment. Baths, cataplasms, emollient injections and bland drinks were used. For three days there was delirium at night. Without other treatment the delirium disappeared. After each bath the fever was diminished for several hours, but diarrhoea continued, the tongue remained gluey, thirst great, skin hot, borborygmus continued and abdomen tense.

On the 3d January, the tongue became moist, the skin soft, and the patient slept; there were however three watery stools during the night; pulse 108. M. Aran now began the subnitrate of bismuth in large doses (10 grammes in 24 hours), at
the same time continuing the warm baths. On the next day the stools had diminished and the pulse had fallen to 100. On the 5th January the stools were still less, though there was still some borborygmus about the abdomen, particularly about the right false ribs; the face more natural, and tongue moist. On the 8th January, there was but one stool during the day, and another at night; pulse 96; tongue moist. On the 9th January, the bowels were entirely checked; no stool during the 24 hours. On the 17th January the patient was discharged, doing well.—[Bul. Gén de Therap.

**Miscellany.**

*Cases of an unusual form of Fever and Dysentery.* By Henry F. Campbell, M. D.—The present season has been marked by great heat and unusual drought, the thermometer ranging from 82 to 96, for nearly two months, and any thing like general rains being almost unknown during the months of June and July. In June, we heard frequently of a "Dysenteric Fever" that prevailed more or less in the upper portions of this State, but as to its exact character, we are unable to affirm, as our letters of inquiry to physicians, in these localities, have failed of reply. We therefore only refer to the rumor as evidence of the atmospheric tendency in other localities than our own. On the 12th of July, we were called about three miles from this city, over the river, to a case of dysentery. It was that of a child sixteen months old, in its first dentition. It had been attacked on the day before with diarrhoea and slight fever. During the night previous to our seeing it, the passages had become bloody, were attended with considerable termmia and the fever was quite violent. When we saw it, the pulse was rapid, the skin hot and dry, especially over the abdomen. The passages were not very frequent, were of a pinkish, bloody color, and consisted principally of mucus. The gums were incised freely, and we prescribed 5 grs. of blue mass, dissolved in syrup; and an injection of starch with 8 drops laudanum after each evacuation. Emolient poultices were directed to the abdomen, and occasional doses of camphor water administered. Shortly after our first visit, we were again called to see the patient which had had a convulsion. We found it in a state of great agitation, the pulse rapid and depressed and the passages very frequent. As the injections were not retained, opiates were administered by the mouth. A blister was applied over the abdomen, but with no good effect. The convulsive
movements were controlled by chloroform, but the child never appeared fully to recover from the depression and agitation induced by them. Calomel in one grain doses was administered every two hours. The pessages became very copious and were watery in their character. It died about the middle of the second night from that on which it had been attacked.*

Case 2d. In the same neighborhood as the above, we saw Thomas, a lad aged about 12 years. He had dysentery, with the discharge of considerable quantities of blood and mucus. The passages were frequent and attended with great straining and distress. The pulse, when we first saw him, was natural. The tongue slightly furred. The skin cool, soft and pleasant. His father had administered about 12 grs. of calomel previous to our seeing him. Our prescription was 3 grs. of calomel every three hours, in combination with injections of starch and laudanum after each passage. Mustard poultices were applied to the abdomen and moderate doses of Chloric äther and champhor water were prescribed to allay the pain of which he complained. On the second day he had taken 18 grs. of calomel besides the twelve grs. given previously. He had had slight fever the night before but had rested well after the administration of laudanum. The passages were of a dark bilious character, with portions perfectly distinct from the general mass, which were dysenteric and bloody.

R. Calomel grs. 12.
Opii. P. " 3.
Gallae P. " 6.
Acet Plumb. grs. 4.

M. and F. 6 powders—dose 1 powder every 3 hours.

On the fifth day the passages were less frequent and much improved in character. The exacerbation of fever the night previous had been more decided. The skin still pleasant and suffused with a copious moisture. The opium, lead and galls were continued three times daily, the calomel being omitted from the prescription. Also prescribed 12 grs. of quinine during the morning in anticipation of the paroxysm. On the fifth and sixth days the passages continued of a feculent character, but on the seventh day, small quantities of bloody mucus were again apparent in the discharges. There was no return of fever. Prescribed two grs. of calomel each night. Diet, gelatin rice gruel and chicken broth. The passages became more and more natural, though always bearing the marks of considerable intestinal irritation, and the patient very slowly recovered.

* Dr. Paul F. Eve was called in consultation in this case at a late period.
Case 3d. Mr. E. A., aged about 35 years, was attacked with dysentery on the 14th of July. The passages were frequent and bloody, but not attended with much pain; skin hot and dry; pulse somewhat depressed, and 90 per minute. He manifested great depression of spirits. Prescribed 5 grs. of calomel with one gr. of opium every three hours, with laudanum and camphor in the intervals when the passages were frequent. The passages became less frequent, were dark and very offensive, but were followed by great prostration of strength. The calomel was omitted and 5 grs. of blue mass substituted, with acetate of lead, nut galls and opium after each passage. The discharges became less frequent, and the quantity of blood and bloody mucus was greatly diminished, but the prostration of strength was still very great. Fever continued without remission: pulse 110 per minute. On the fourth day the skin is hot and dry. Thirst very urgent. The dysenteric appearances had subsided from the passages, but they were thinner than previous. On the fifth day the pulse is more rapid and weaker, the skin cooler and clammy; the passages are very frequent and watery, having the appearance of the washings of bloody beef, though sometimes darker, resembling muddy coffee; they contained no mucus or fecal matter whatever. After consultation with Dr. J. A. Eve, we prescribed a large blister to the abdomen, and directed laudanum injections with starch in combination with acetate of lead after each evacuation. These injections were speedily rejected: the passages were very copious and passed involuntarily, often unconsciously. The pulse ranged from 130 to 140 per minute—every thing marked a state of actual collapse. Brandy and other stimulants were administered in large quantities, but the pulse did not respond. The passages continued large and were often of clear water. A blister was applied over the sacrum, but without effect. All stimulants were of no avail, only serving to distract the last moments of the patient, which without them were characterized by great calmness and collectiveness of mind. He died on the morning of the 7th day.

Case 4th. P., a boy aged 8 years, was attacked with dysentery on the evening after the above case. On examination, we found him remarkably free from excitement, the skin cool and moist. The passages produced but little pain, were very frequent, and invariably composed of blood and mucus. Prescribed, 10 grs. of calomel, to be given in two doses, one that night and the other in the morning, with 15 drops of laudanum in one oz. camphor water after each passage. On the second day, fever became apparent, and in the evening, the
pulse was very rapid, 130 beats per minute. The passages continued of a bloody character mixed with mucus. He complained of great pain immediately before and during the evacuation of the bowels, but at other times appeared quite easy. Injections of laudanum 30 gtt., acetas plumbi grs. 10, with starch were administered after each passage, but without effect. The passages were still very frequent and unchanged in character. We applied a large blister over the abdomen and continued the administration of the calomel in two grain doses three times daily. On the fourth day the fever had not abated, though the pulse was much more feeble and the skin cooler: during the night he became restless and tossed constantly; the bowels were evacuated involuntarily and the stools had now assumed the appearance of bloody water. The skin was cold and clammy, the pulse being very rapid. Mustard poultries, brandy and other stimulants failed to arouse him from this state of collapse, though he still lingered till the sixth day, when he died. For nearly twelve hours previous to his death he suffered from the greatest restlessness, and only remained quiet on the administration of chloroform.

We might here report the particulars of two other cases very similar to this last; the one occurring in a child of 3 years of age, treated by myself in company with Dr. Ford, and the other, a boy of six years of age, treated by Dr. Ford, but in their course as well as the result of treatment, they were so exactly similar that it is entirely unnecessary to dwell upon them. In both, the fever was of a continued character, with great prostration of strength, and the passages also presented the same serous character as in the above case. Both these also died on the sixth day.

Case 5th. Mr. L. A., a young man aged about 20 years, was affected with dysentery similar to the above cases, complicated with fever of a remittent type. On the second day of the disease we saw him and prescribed 20 grs. of blue mass and ½ gr. morphine in camphor after each evacuation. The passages on the next day presented a very dark appearance and were offensive, but there were still lumps of thick mucus with blood scattered through some of them. Calomel in combination with the acetate of lead and nut galls, was administered three times during this day, with laudanum and starch injections after each evacuation. On the fourth day, the dysenteric character was not manifest in any of the passages, which were not very frequent. The calomel was discontinued and 10 grs. of quinine was given during the remission in the earlier part of the day. The passages were restrained by the laudanum and starch injections. On the 6th day, he
suffered great pain during the evacuation of the bowels, and the passages had again assumed all the characters of dysentery, and were also very frequent. Prescribed at night a large blister to the abdomen and to continue injections. Seventh day; blister had drawn well, passages again consistent and dark, though attended with considerable pain. Prescribed 3 grs. of blue mass every three hours, and to continue injections; also to take chloric ether and camphor to allay pain. After the administration of the quinine there was no return of fever. The character of the passages improved slowly, but for many days continued interspersed with small portions of whitish lymph. He has recovered, but is still feeble and enervated from the depressing disease through which he has so recently passed.

The location in which occurred the above cases was usually free from disease of any kind. The neighborhood is the summer residence of several families, having been selected for the salubrity and pleasant-ness of the situation. Five of the cases were fatal and occurred in one family, while the two others whose termination was favorable, took place in other houses. It will be observed from our report that the disease attacked only the white residents of the neighborhood, and although a number of negroes were subjected to exactly the same morbid influences as those whites, still not one of them that we are aware, was the subject of this form of dysentery.

Above, we have given a simple statement of the facts connected with the prevalence of this disease, and as our intention is to make an historical record, rather than to discuss or promulgate a theory, our remarks in relation to it will be neither copious or diffuse. There are but few points in our record that admit of any debate or observation. As to the cause, it is evident that the invasion of this ordinarily salubrious region by an unusual form of disease must be attributable (judging from its suddenness and partiality), to some peculiar and recent agent having its origin within the limits circumscribed by the extent of its manifestations. We must also perceive that the character of its effects is identical wherever manifested, only varying in their intensity and that this deleterious agent, of whatever nature, must have been more favorably situated by proximity or otherwise for the full development of its effects upon that location where its fatality was so marked. In reference to the indications for treatment, we have been strongly impressed that too much importance cannot be attached to the early and vigorous application of remedial means during the period of the bloody discharges; for, from our observation, it is only during this stage that any treatment is available. After the occurrence of the
serous dejections and their attendant rapid and feeble pulse, cold extremities and sunken countenance, we have, in no instance, seen the least benefit derived from stimulants astringents or revulsives. The disease must be resolved during the dysenteric period, as the succeeding state is one of collapse, in which the impressibility of the system, to remedies of any kind, is almost null. In the two cases which terminated favorably, it will be observed that the principal difference in the treatment from that of the others, consisted in the continued administration of small doses of calomel in combination with opium. In one of these a blister was early applied with excellent effect, while in the other, which was milder, no blister was applied during any stage. In several of the cases, the fever having assumed a remittent type, quinine prevented the return of the paroxysm; though given with any other view, (that is specifically,) we cannot speak well of its efficacy. As it is our object only to illustrate the peculiarity of the disease, we think it unnecessary to dwell longer on the treatment and with these brief remarks we leave the subject to the observation of those who have had better opportunities for witnessing and treating this formidable variety of dysentery and its accompanying fever.

_Treatment of Asphyxia from Drowning and Hanging._ From Dr. (D. H. Storer’s Address before the Massachusetts Medical Society.)—How little understood, among many of the well-educated and intelligent in our community, is the treatment for the restoration of the drowned! How many lives must have been sacrificed by the barbarous custom of suspending the asphyxied by the feet, or rudely rolling them upon barrels with the head dependent, for the purpose of freeing the lungs of the water with which they were supposed to be filled!—a custom which, within a few years has fallen under my immediate observation.

How many, apparently dead, have been restored to their afflicted friends by means of long-continued, scientific efforts; by having their bodies carefully dried, and exposed to a moderate temperature—their heads and shoulders elevated—their lungs artificially inflated; by the exhibition of external and internal stimulants and judicious venesection!

How many have thus been resuscitated, after all human means seemed unavailing—long after the by-standers have ceased their efforts, and none saved the almost frantic parent or child, have in silent prayer continued their exertions! Numerous cases might be cited to show that life has been re-called after a body has been immersed for a very long period. These instances should cheer the desponding, and encourage them to labour while there seems the slightest possibility of restoration. Allow me to illustrate this remark with a single example, which was published during the last year in the “Northern Lancet and Gazette of Legal Medicine.” It was communicated by Charles
McNeil, Esq., of Charlotte, Vt., and is the touching story of a grateful father. "One of my sons, 9 or 10 years of age, was on Sunday afternoon, in August, 1830, found to be missing. On inquiry, I ascertained that he had last been seen playing on a boat lying at the wharf. The day was calm, and the waters of Lake Champlain still and unruffled by a ripple; but, knowing that he had been on the boat, his brother was sent to search for him, but he returned without any tidings. Once more he returned to the boat, and, looking carefully in every direction, discovered him lying on the bottom of the lake in eight feet of water, where he must have lain half an hour, if not longer, when he was brought to the surface. I received the body: it was rigid and cold, as also were the limbs; a bluish cast was spread over the countenance; the deep solicitude of a father discovered no signs of life—no heat; the heart was still, and the lungs quiescent. No more would I have anticipated the presence of life, if he had been submerged for several years; and had I not, some days previous to the accident, providentially read in an old paper an article by Dr. Buchanan, of Philadelphia, on the subject of restoring suspended animation after submersion, we should have consigned the body to the grave, as it was recovered from the lake. The body being placed on a bed, some of the neighbors were directed to rub it briskly with flannel cloths—an order which they obeyed with great reluctance, from the thought of performing this office on a corpse; and I will admit that I somewhat entertained the same opinion. Still, I would fain hope, and urge on my friends the continuance of their exertions; the friction was persevered in; warm flannel sheets were applied in rapid succession. This treatment was continued for thirty or forty minutes, when we were gratified by hearing a feeble murmer in the throat, followed soon after by a slight quivering of the lips. The case, however, was involved in doubt and obscurity for a long time, as the recovery was extremely slow."

The above remarks might, with equal propriety, be applied to the subject of hanging. Many judicious general practitioners entertain the most vague and unsatisfactory notions regarding its phenomena. They not only are unacquainted with the several appearances produced in individual cases of suspension, but they really are not aware how death is produced; and, cerebral apoplexy not unfrequently being considered the cause, copious depletion, employed instead of artificial respiration, checks the vital current forever.—[Boston Medical and Surgical Journal.

Compression of Aorta at the Sacro-vertebral Angle, for Uterine Hemorrhage.—M. Duhamel reports three cases in which compression was successfully employed. The two first instances presented themselves in a woman aged 30 years, one immediately after parturition, the other two years after. In the last, the hemorrhage came on 16 days after parturition. The third case was in a woman, eight months and a half advanced in her second pregnancy, in whom a little hemorrhage appeared at intervals during fifteen or twenty days, which confined her to bed. Believing the placenta to be attached to the neck
of the uterus, M. Duhamel brought on labor. In one hour after, the uterus had contracted greatly, and all hemorrhage had ceased, but in another hour the hemorrhage reappeared, and became so abundant that it caused frequent syncope, and when M. Duhamel returned the woman was absolutely exsanguine. The compression of the aorta was alone tried, and the hemorrhage was immediately stopped. Compression was continued nine hours. The hemorrhage had been so great, that it was not until 24 or 30 hours after its suppression that the pulse began to be felt at the wrist. —[Arch. Gén. de Méd.

Successful Caesarian Operation.—M. Bonchacourt, chief surgeon of the Maternity of Lyons, has just published, in the Bulletin de Thérapeutique, the case of a deformed woman, thirty-two years of age, upon whom he performed the Caesarian section with complete success. The patient’s sacro-pubic diameter was only two inches and two lines; embryotomy had been performed in a former confinement, four years previously, and in October, 1850, she again presented herself on the point of parturition. In about seventeen hours from the beginning of labour the cord and one arm were expelled by very powerful contractions, but the head could evidently not pass. M. Bonchacourt, finding that the heart of the foetus and the cord pulsated strongly, resolved, after consulting with his colleagues, to perform the Caesarian operation. Chloroform was used, the child extracted alive, and the operation, with the dressing, did not last more than twenty-five minutes. The child died five days afterwards from ordinary causes, and the mother left the hospital twenty-four days after the operation, the wound being completely cicatrized, and all the functions performed in the most satisfactory manner. The patient was seen in April, 1851, five months and a half after the Caesarian section, and found quite well; the only remains of the operation being a slight and easily reducible hernia, a little distance below the umbilicus.—[London Lancet.

Ages of Animals.—A bear will seldom live beyond 20 years, dogs and wolves live 20 years, a fox 14 to 16. The ordinary age of cats is 17 years; that of a squirrel, hare or rabbit, 5 to 8 years. Elephants, it is said, live 400 years; the rhinoceros 50 years; horses may live 72 years, but their ordinary age is from 25 to 30 years: the chamois live sometimes 100 years. An eagle died at Vienna at the age of 104 years. Ravens live 100; swans 300. A tortois lived more than 190 years. A sheep seldom lives more than 10, and a cow more than 15 years.

On the Proportions of the Human Skeleton.—M. Carus, of Dresden, has been endeavoring to discover the standard measure upon which the human frame is constructed, and considers that he has found it in the vertebral column. He states that the spine in a new-born child is just one-third of what it becomes in the adult; and he therefore
takes the third part of the vertebral column as the abovementioned standard. The head, for instance, its length and breadth taken together (without the lower jaw, which is a sort of extremity of head,) is just the size of the standard measure; on the trunk each clavicle, with the acromion, the sternum, and each scapula, may be measured upon the same suit. Such is likewise the case with the pelvis. The normal length of the arm is three measures, the hand one, the foot one, the tibia two, the femur two and a half, &c. The whole length of the body comprises in the normal state nine and a half of the standard measure. M. Carus has had a small figure constructed upon which these various proportions are accurately marked.—[London Lancet.

More Wonders in Medicine.—A very short time since, the French medical papers were very busy in discussing a new method of curing sciatica, which consisted in cauterizing the lobe of the ear. Very respectable names, and numerous cases, supported this extraordinary procedure. We have now another startling manner of dispelling both neuralgia in the face and toothache; it consists in merely touching with a blunt probe the membrana tympani. The author of this method is M. Desterne, who has published in 'L'Union Médicale,' the rise and progress of his discovery, accompanied with numerous cases, which are extremely surprising. The most intense toothache connected with decayed teeth, is relieved in a moment by the magic touch of the membrana tympani; agonizing neuralgia of the face, one of six months, the other of two years and a half standing, were cured in an instant by the same means; hemicrania vanishes, and quinine is left far in the background. These sudden effects are supposed to be obtained by the agency of the corda tympani nerve.—[Ibid.

Instrument for arresting Epistaxis. By M. Gariel.—This is a tube made of caoutchouc, carrying at its extremity a dilatable balloon, which, when introduced into the nostrils in its undistended state, may, by the process of insufflation, be made to assume such dimensions, and exerting such pressure as completely to arrest the hemorrhage.

A simple method of plugging the posterior nares suggests itself in examining this tube with dilatable extremity. This operation as at present performed, whether with a special apparatus, or with an ordinary catheter, is frequently very troublesome, though simple in appearance. If the tube be introduced from before backwards through the cavities of the nose, until it has quite cleared the posterior nares and arrived in the pharynx, and be then dilated and drawn forwards, we obtain a more complete and manageable plug than that usually made of lint.—[Dublin Quarterly Journal of Medical Science.

Disgusting Remedies.—If our homœopathic friends are in the habit of using in their practice such disgusting and absurd remedies as are recommended in Jahr's Pharmacopœia, the sooner a line of distinction is drawn between them and the regular practitioners, the better. We
know not whether any of Hahnemann's disciples have demonstrated, on scientific principles, the action or properties of such remedies. They certainly bring to mind the absurd ingredients used in the old treacle of Andromichus. The following, from the London "Institute" of Jan. 5th, will present the matter to our readers.

"Jahr's Nouvelle Pharmacopée Homeopathique, published at Paris in 1841, contains, in the list of materia medica, various disgusting absurdities, among which are lachesis, the poison of the rattlesnake; formica rufa, the red ant; aradéa diadema, a species of spider; rana bufó, the toad; lacerta agilis, the lizard; scarabaeus melolontha, the cockchafer; viverra putorius, stinking polecat, of which the officinal part is the fetid secretion from the glands near the anus. The écrivisses, or fresh-water crabs, are directed to be pounded alive in a mortar until reduced to a fine paste. This is diluted with about twice its volume of alcohol, then strained, and the liquor preserved for dilution in the usual way. Toads, lizards, cockchafers, and other reptiles and insects, are brayed (alive) in the same manner!

"We also learn from a contemporary that to such an extent is the doctrine similia similibus curantur carried, that 'syphiline' is administered to patients suffering under secondary syphilis; and 'blennorrhin,' which is gonorrhœal matter manipulated according to the rules of homeopathic confectionary, is mentioned in the Homœopathic Archives (published at Leipsic, 1841) as a remedy for gonorrhœa and gleet!"—[Boston Med. and Surg. Journal.

Remarks on the Cooking and Preserving of Meat. By Prof. Liebig.
The view that broth derives its nourishing properties essentially from the dissolved gelatin—an opinion which has frequently been discon- tenanced in practice—is shown by this investigation to be completely untenable. The gelatin imparts no taste to broth, and forms by far too insignificant a portion to allow of its nutritious properties being de- pendent upon it. Chopped beef, or veal, previously exhausted in the cold, when boiled for five hours, yielded to the broth, the former 0.5 per cent. and the latter 1.5 per cent. of soluble constituents, of which gelatine formed, at most, but one-half. On the contrary, this investi- gation confirms the view of Prout, that the peculiar constituents of broth exist ready formed in the flesh, and are by no means merely pro- ducts of the process of ebullition. The residue of the chopped mus- cular flesh of different animals—as of the fox and ox—after having been exhausted in the cold, cannot be distinguished the one from the other; all the peculiarities of the flesh, especially its flavour, depend- ing entirely upon the soluble constituents which are found in the broth.

The researches of Liebig offer a simple and convenient method of preparing, in a few minutes, a broth of the highest nutritive proper- ties. Finely-chopped lean beef is mixed with an equal weight of cold-water, and left, if possible, to macerate for a short time, and the whole then slowly heated to ebullition. After gently boiling for some minutes, the clear broth separates from the coagulated albumen, and from the muscular fibre, which has now assumed a sinewy appear-
ance. After straining, it requires only to be seasoned, and slightly coloured with burnt onions, or with caramel. The colouring of the broth is nothing but a concession to the common prejudice, which cannot, however, be well dispensed with. By evaporation in a water-bath, or at a still lower temperature, the broth becomes spontaneously coloured, and leaves behind a brown extract, possessing a delicate odour of roasted meat; this extract, when dissolved in about thirty parts of water, and flavoured with salt, yields, at any moment, a most excellent broth. The advantage of extract of flesh for the nutrition of invalids, its use in hospitals, or in field service, as well as in domestic economy, is sufficiently obvious. We see, likewise, that bone-broth, broth-tablets, &c., being preparations essentially different from a true broth from flesh, cannot enter into competition with it as articles of food.

As an article of commerce, extract of flesh bears somewhat too high a price. It appears, however, to offer a new source of profit to the inhabitants of the different settlements in America and Australia, who might successfully prepare it from their cattle at a cheaper rate and send it to the markets of our crowded populations.

As to the cooking of meat, it follows that to prepare, by boiling, a rich broth, and, at the same time, a savoury bouilli, is perfectly impossible. After preparing broth to the above directions, the meat which remains is perfectly unpalatable, tasteless and tough, and as dissimilar as possible to boiled beef of our tables. If, on the other hand, it be desirable to leave in the boiled meat the greatest amount of nutrition and flavour, it must be at once plunged into boiling water. If the temperature, after some minutes, be reduced to about 158° Fahr. by the addition of cold water, and the water maintained at that temperature until the meat is thoroughly cooked, all the conditions necessary for this purpose will have been fulfilled. If it be perfectly established that pure fleshy fibre—viewed independently of the juice—instead of being softened by boiling, is converted into a horny or sinewy mass, it is evident that this change is prevented by two different means in the ordinary mode of cooking meat: in the first place, by the temperature in the interior of the piece of meat never reaching the boiling heat; and, in the second place, by its being, nevertheless, sufficiently high to coagulate the albumen which surrounds, and, to a certain extent, protect the fibre. The temperature in the interior of the meat is not only sufficient to coagulate the albumen (132° Fahr.,) but must attain even the point necessary for the coagulation of the colouring matter of the blood (from 149° to 155° Fahr.)

The investigation of Liebig exhibits the process of salting meat under a perfectly new aspect. The "brine," which meat and dry salt form when together, amounts to from one-third to one-half of the juice of the meat, and contains the chief constituents of concentrated broth. The brine presents an acid reaction, and, owing to the quantity of albumen present, coagulates when boiled; it contains, moreover, phosphoric acid, lactic acid, a large amount of potassa, kreatinine, and, doubtlessly, also kreatine. There can be no doubt, therefore, that
salting diminishes the nutritious properties of meat, by the amount of constituents which pass into the brine; hence the explanation of the well-known injurious effect on health produced by the continued consumption of salt meat.—*Liebig's Report*, vol. ii.

*Tincture of Iodine in the Treatment of External Poisoning*.—Dr. T. Smith, of Cincinnati, has used the tincture of iodine, with much success, in several cases of poisoning, the result of contact with the Rhus Toxicodendron (Poison Oak), Rhus Radicans (Poison Vine), Rhus Vernix (Swamp Sumac), &c. Having been frequently called upon to prescribe for this affection, Dr. Smith was led to the trial of local remedies, likely to prove more prompt than the ordinary antiphlogistic treatment resorted to on such occasions. Within the last two years, he has used the tincture of iodine as a local application, in some half dozen cases, and with such striking good effects, that he confidently recommends it to the profession.—*Abridged from the Western Lancet. Med. Examiner*.


We hail with pleasure the appearance of the second volume of these Reports. The success and popularity of the first volume was good earnest of a favorable reception for the second, and since its appearance we feel greatly encouraged from the ability and unremitting industry of which it bears the marks. The work must now go on, and as it has to depend for its support upon the sustaining aid of our profession, we hope that, for the honor as well as the benefit of that profession, its members will come out promptly and give their succor freely and liberally. As yet, we have not had an opportunity to give this volume such a perusal as would warrant an extended review: indeed this would be unnecessary, as the character of the work, the ability of its accomplished and indefatigable author, as well as the importance of the enterprize to the profession, has been sufficiently dwelt on elsewhere in reviews of the first volume. It is sufficient to say that this compares advantageously with it, and will well repay the trouble of a careful and thorough perusal.

H. F. C.