PART I.—ORIGINAL COMMUNICATIONS.

ARTICLE I.

Case of Hydrocephalus, with Operations: By J. B. Whitridge, M. D., President of the Medical Society of South Carolina.

Susan, a plantation servant of mine, was sent to town on the 28th of August, 1832, with her child three months old laboring under Hydrocephalus. She states that the birth was attended with less than ordinary suffering—(being the mother of several children.)

One week after birth, the child was affected with spasms, which continued three weeks, and finally subsided under the domestic treatment of the midwife, nurse, and overseer, aided by an occasional prescription of a physician.

The mother states that about the time the navel string dropped, spasms supervened, and that when the spasms subsided, the enlargement of the head suddenly took place. From that period to the time the child was sent to town, nothing remarkable occurred, except that the child was uniformly subject to constipated bowels, and was generally fretful, but became less so as the head enlarged—always urinated freely, nursed well, and in other respects enjoyed good health.

On the 29th, I consulted my experienced and valued friend, Dr. Joseph Glover, who concurred with me in opinion as to the
expediency and necessity of having immediate recourse to the operation of Paracentesis.

On the 31st of August, in presence of Dr. Glover and his son, I performed the operation by puncturing the integuments of the cranium through the anterior fontanelle, about three-fourths of an inch to the right of the longitudinal sinus—introduced a common director, the groove of which served to conduct the serum from the brain, which was evacuated in a gradual manner to the amount of nearly a pint—by weight upwards of fourteen ounces. The child cried of course, from the pain of the operation, but seemed to be relieved by the evacuation, and before the close of the operation actually went to sleep. A piece of adhesive plaster was placed over the orifice, and the head bandaged so as to approximate the bones which were open at all their sutures, (except the lower portion of the squamous suture,) and to make some pressure upon the brain, perhaps nearly equal to what existed before. The strabismus which had previously been a prominent symptom, was now in some measure relieved. Immediately after the operation the child sucked heartily—but was somewhat fretful during the afternoon—towards evening there was a considerable increase of pulse. With a view to promote absorption from the brain and to determine to the skin and kidneys, I directed a mixture of two parts sp. æther. nitr. and one part tinc. dig. pur., three drops to be taken every two hours and gradually increased to six. This acted very pleasantly, not only upon the skin and kidneys, but as an anodyne, produced tranquil sleep during the latter part of the night.

Sept. 1st. Apparently very comfortable all day—had three spontaneous evacuations from the bowels. Medicine continued in doses of six drops.

Sept. 2d. Child in statu quo, except that the head had discharged considerably during the night, and the bowels were somewhat constipated. Continued the drops until 12 o'clock, then ordered, sub. mur. hydr. gr. vi. In the afternoon removed the bandage and found the head much diminished in size. Soon after, (allowing a little time for an equilibrium to be restored in the circulation,) firmly re-applied the bandage so as to make considerable compression. At 6 o'clock, directed ol. vol. pini lar. 3 ss., there having been but one alvine discharge during the day, and no other operation from the bowels since the exhibition of
the calomel. The turpentine having no effect, ordered oleum ricini \( \frac{3}{4} \) ss. to be given in two doses, one half at 9 o’clock, the other at half-past ten if necessary.

Sept. 3d. Medicines operated five times in the course of the night, but was succeeded by pain, griping and tenesmus—and it was thought too by pain in the head, which might have been occasioned by crying or perhaps by cold. The latter, however, was not indicated by any marked febrile symptoms. Ordered enemata of starch and laudanum. Two of which were administered—and two drops of laudanum \( \text{per orem} \). Several doses were given before relief was obtained. The child became quiet in the afternoon and slept tolerably well. Resumed the diuretic mixture.

Sept. 4th and 5th. Child quite comfortable—nursed well—bowels acted on once or twice each day—apparently free from irritation and pain. Diuretic mixture continued in doses of six drops every two or three hours.

Sept. 6th. In the morning the child had convulsions—the head gradually enlarging and strabismus increasing. Directed calomel gr. vi. to be given, which operated but three times during the afternoon and night.

Sept. 7th. Calomel operated once during the day. Child continues much the same as yesterday. Drops continued.

Sept. 8th. The little patient remains the same, except that the head is rapidly increasing. Diuretic mixture continued.

Sept. 9th. Child tolerably comfortable in the morning. At mid-day had two or three convulsions—these occurred again in the evening. Child rather fretful when awake, but sleeps much. Ordered calomel gr. vi. to be given, and the laced cap upon the head, which had been substituted for the bandage, to be loosed. The diurectic drops have been continued as usual—about xxxvi. drops in twenty-four hours.

Sept. 10th. The calomel operated but once during the night. Directed sub. mur. hydr. gr. iij. mixed in ol. ricini \( \frac{3}{4} \) ss. which operated freely five times in the course of the day and night.

Sept. 11th. Child somewhat better. Increased the dose of the tinc. dig. and sp. sweet nitre to eight drops every three hours.

Sept. 12th. Child continues better—evidently improved by the cathartic. Drops continued as yesterday.
Sept. 13th. The little patient continued tranquil all day. The drops which were given as yesterday, acted freely as a diuretic.

Sept. 14th. Child's head had attained precisely the same size it was before the operation, but the strabismus had almost entirely ceased, and the child seemed in other respects much better.—At one o'clock repeated the operation near the place it was performed before, and drew off seventeen ounces of serous fluid, considerably more than a pint. Child bore it well. Cried heartily, and evinced very little inclination to syncope. Drops continued.

Sept. 15th. The child had a convulsion in the morning, but has been in other respects quite comfortable during the day.—Medicine continued.

Sept. 16th. Continues much the same as yesterday.

Sept. 17th. Had a convulsion in the morning—was fretful during the day. Had another in the evening, was very restless, cried much, and required to be held in an erect posture. Directed twelve drops tinc. camph. opiata to be given, which procured some rest.

Sept. 18th. Directed sub mur. hydr. gr. vi., which operated three times in the course of the day and evening. Had a severe convulsion about one o'clock, but was tranquil in the evening, pulse and skin in good condition.

Sept. 19th. Child fretful and cried much in the morning. Directed tinc. camph. opiata to be given, which procured relief. The bowels were acted on once during the day. The child urinates freely under the use of the drops in the dose of eight every three hours, as before. Skin in good condition.

Sept. 20th. The little patient has had a more tranquil day—has been free from convulsions—bowels and skin in tolerable order. Drops continued.

Sept. 21st, 22d, and 23rd. The child during this period in statu quo. Case marked by no peculiar symptoms of irregularity or uneasiness. Diuretic mixture continued as usual.

Sept. 24th. Had a convulsion in the morning with some fever and apparent derangement. Ordered sub mur. hydr. gr. viij. Other convulsions during the day. Calomel operated but twice. In the evening gave pulv. con. jalapii, gr. v., sup tart. pot gr. xv., which produced two more dejections.

Sept. 26th, 27th, 28th and 29th. No material alteration in the child during the last four days. All the emunctories of the body seem to have been pretty well open, and no other medicine given save the diuretic mixture.

Oct. 8th. No material alteration in the child since the 29th ult. until yesterday, except that the child's head had gradually enlarged, and during the last three days had become very turgid. It was much less irritable, and for the last two days ceased to cry entirely. The bowels as usual were constipated. One or two doses of calomel only had been given, and the drops continued.

Yesterday morning (7th,) it was taken with cascading and vomited much through the day. A little magnesia was given it once or twice with only partial relief. In the night the vomiting returned severely, and was then relieved by xv drops of elixir paregoric. The bowels being still constipated, gave this morning (8th,) sub mur. hydr. gr. vi, which operated once in the evening. At 4 o'clock, in presence of Dr. Waring, I again operated upon the head, which was now very turgid, and enlarged to nineteen and a quarter inches, measuring over the os occipitis and os frontis, and nineteen and three-fourth inches measuring under the chin and over the posterior part of the osa parietalia, near the apex of the lamdoidal suture. The quantity of serous fluid which was now evacuated amounted to fourteen ounces by weight. The puncture was made three-fourths of an inch further back than the former—some small blood vessel was wounded, in consequence of which the serum was tinged with blood; perhaps a table spoonful was discharged, the flow of which, however, ceased before the serum was all evacuated. The child which had been so senseless and so constantly inclined to sleep for three days before the operation, did not appear to suffer at all from it. It was evidently more sensible, animated, and brighter afterwards. Although there was not much strabismus previously, it looked better about the eyes after the operation was performed.

Oct. 9th. The night though a tranquil one, was passed without much sleep. To-day the child seems brighter and better—sleeps very little—has had four voluntary stools, or else the effect
Case of Hydrocephalus, with Operations.

of the calomel taken yesterday morning. The diuretic mixture resumed this afternoon, which had been suspended during the last thirty hours. No material alteration in the child during the 10th, 11th and 12th, except that the head seemed to be filling up rapidly. On the thirteenth, the child had several convulsions—was fretful and sometimes cried severely—bowels somewhat constipated—had been acted on but once during the day. Directed the laced cap to be removed and the child's head bathed in cold water—the cap to be reapplied, but not so tight as before. Ordered, sub mur. hydr. gr. vi., which operated but once next morning. Drops continued.

Oct. 15th and 16th. The cathartic operated several times freely, producing at first dark, afterwards mucus and stringy or fibrous stools. Head rapidly swelling. To-day, (16th,) has some fever, is fretful and apparently in pain—has had several convulsions—and although two discharges from the bowels, ordered a dose of cal. magnesia to be given, (say a small tea-spoonful) at 6 o'clock in the evening.

Oct. 17th, 18th, 19th and 20th. No material alteration in the child, except a gradual enlargement of the head, not only from its rapidly filling up, but apparently from natural growth. The child nurses heartily—is fat, and grows well. The only inconvenience which it seems to suffer, is, occasional slight convulsions, and constipation of the bowels. The head had again become quite turgid, its circumference now (20th,) being nineteen and a half inches and twenty and a quarter inches, measuring under the chin. At four o'clock I repeated the operation, and drew off thirteen and a half ounces of serous fluid—reapplied the laced cap—directed the diuretic mixture to be continued as before, and sub mur. hydr. viij. grs. to be given every fourth day, to be followed with sup. tart. pot. if necessary. On the 21st, the mother and child returned to the country to remain a fortnight.

Nov. 3d. From the account given by the mother, it appears the child continued in statu quo, until Wednesday the 31st of October. Previous to that time, it was comfortable, nursed well, and she thought had lost no ground. It however had fits occasionally, or was convulsed—and the overseer, Mr. A—thought it quite ill. On Wednesday, as before stated, it became very much worse. Its head had now become quite enlarged, so
as no doubt to occasion much compression of the brain. Fever ensued, and the convulsions were increased.

On Friday afternoon, my boat left the plantation for town, in which the mother and child took passage. Distance by water, about fifty miles. The latter, however, was so ill, that the over-seer thought it inexpedient for the child to come, but as it had been directed, permitted the order to be complied with. While on the passage, and when about half-way to town, the child died.

About twelve or fifteen hours after, I made a *post mortem* examination, the head at that time was nineteen and three-fourth inches in circumference, measuring over the os frontis and os occipitis above the ears, and twenty and a half measuring over the osa parietalia and under the chin; just a quarter of an inch larger each way than at the last operation.

I first plunged in a small trocar and drew off what water would readily flow. I then made an incision through the scalp and through the meninges of the brain, in the direction of the longitudinal sinus, and along the sagittal suture, by means of which, I evacuated the balance of the serous fluid—in all two pounds and a quarter.

The autopsy in this case, exhibits the following interesting and singular phenomena. The medullary substance of the brain was very small in quantity, being separated into two parts at the ventricles, and attached to the parietes of the cranium—the substance of which was found principally upon two sides, and upon the base of the cranium, arising with a thin edge near the top of the parietal bones, and descending thence to the base, not more than six or eight lines in thickness in any part. The parietal bones were separated about two inches along the course of the sagittal suture, and with the os frontis and os occipitis, formed very large openings at the fontanelles. The dura mater and the other cerebral membranes (viz. the pia mater and tunica arachnoidea,) were very thick and strong, especially at the anterior fontanelle. The falciform process extended to the base of the brain, having a round opening in the centre, of about one inch in diameter, which of course admitted of a free communication of the serous fluid from one side to the other. The tentorium cerebelli had also an opening in it similar to that in the falciform process, which admitted of a free ingress and egress of serous fluid, so that all parts of the cavity of the cranium were
subject to dropsical effusion. The cerebellum was somewhat smaller than usual, but in other respects it appeared quite natural and healthy. And upon the functions of this organ no doubt depended the exercise of the powers of life, for so long a time, and the apparent health and flesh of the child. The pressure upon this organ as well as the cerebrum, previous to each operation, no doubt was the principal cause of the convulsions. And had the operation been repeated on the Wednesday or Thursday preceding the child's death, it is probable its life would have been prolonged. But that a sound and healthy action would have been produced, or that a cure could have been effected by a repetition of the operation, is not at all probable. The oftener the operation was repeated, the more rapid would have been the accumulation—the more distressing the symptoms, and consequently the greater the necessity for relief.

The first case which came under my observation, in which the operation of paracentesis capitis was practised for the cure of Hydrocephalus, and the first of the kind of which at that time I had any knowledge, was the case read before the Medical Society of South Carolina, on the first of July, 1818, by Joseph Glover, M. D. of this city, and subsequently published by the Society in pamphlet form. In this case the operation was repeated eight times, with great relief to the patient and with great hope of success—seven times by the Dr. and once by myself. The first operation was performed on the 3d of March, and the last on the 21st of June, 1818. The subject was a female child born on the 21st of November, 1817. Six and three-quarter pints of serous fluid were drawn off in the course of the several operations. The case terminated fatally on the 21st of June. After death, three pints more were subtracted from the inter-cranial sac formed by the dura and pia mater. Reviewed in the *Archives Générales de Medécine, à Paris*.

In the London Medical Repository and Review, for January 1836, another instance of tapping for hydrocephalus is reported, by Mr. Sym, with an unfavorable termination. Noticed in the *Archives Générales de Medécine, Mars*, 1826.

It is stated in the London Medical Gazette, for April, 1830, that Dr. Conquest had, in two cases, performed the operation of puncturing for the cure of hydrocephalus, with success in both.
Professor Graefe of Berlin, repeated this operation eleven times in the course of six months, upon the head of a child, (a boy between four and ten months old,) which resulted in a perfect recovery. Reported in Graefe and Walter’s Journal der Chirurgie, and copied into the Archives Générales de Médecine, à Paris, Mars, 1832—Into the London Medical and Physical Journal—and into the American Journal of Medical Sciences, Nov. 1832.

This operation was subsequently performed for the cure of hydrocephalus, by Mr. Russel of Aberdeen, with a successful issue—an account of which may be seen in the Edinborough Medical and Surgical Journal, July, 1832.

Mr. Russel says, “with the exception of Dr. Conquest’s two cases, I am not acquainted with another in which the ventricle has been punctured for the relief of water in the head. In the cases of Rossi and Dr. Vose, the water between the membranes only was evacuated.”

In the London Lancet for June, 1835, a case is recorded in which the operation was twice performed by Francis Cooper, Esq., upon the same subject, and a large quantity of water evacuated, but with an unsuccessful termination.

In the Southern Medical and Surgical Journal, for December, 1836,* a case is stated by Professor Dugas, of the Georgia Medical College, in which “the brain was punctured seven times, and sixty-three ounces of fluid drawn off, without the slightest unpleasant effect from the operation,” yet the case unfortunately terminated fatally.

From the formidable character of this disease, and the generally fatal termination of it—yielding to the power of no article of the Materia Medica—reasoning a priori, one could scarcely come to the conclusion that the trocar would prove so important a remedial agent. Although a majority of the cases which have hitherto been reported, terminated fatally, as might have been reasonably expected, yet, if the operation of paracentesis capitis has proved successful in a single instance, it is a fact which ought

*Just as this article was about to be closed, and placed at the disposal of the Editors of this Journal, (though not originally written for publication,) and just in time to be here noticed—the seventh number of the Journal came to hand, containing a description of Dr. Dugas’ interesting case, which, in many of its features bears so strong a resemblance to mine, as perhaps to lessen in some measure the interest, which might otherwise have been felt, in the details which are now presented to the public.

to be duly appreciated by the profession, and one which I have little hesitation in saying is sufficient to lead to a more general adoption of the operation in this intractable disease. To be successful, it should be employed early—before there is much functional, and certainly before there is much structural derangement of the delicate fibre of the brain—that source and fountain of all intellectual emanations. And to prevent compression, which immediately impairs the functions, and sooner or later brings on an organic affection of the cerebral mass, this remedy should be had recourse to early—in aid of which, all the other means should be employed, that science and skill can suggest.

Charleston, S. C., December 20th, 1836.

ARTICLE II.

A short account of Master S. K. G. Nellis, born without arms, and of his performances with his toes: By Paul F. Eve, M. D., Professor of Surgery in the Medical College of Georgia.

While witnessing the wonderful performances of this youth, during his visit to our city, I thought some notice of his deformities, &c., would be interesting and acceptable to the readers of the Southern Medical and Surgical Journal.

Mr. Nellis was born in Johnstown, Montgomery County, N. York, in March, 1817. At birth he was of the natural size and well formed, with the exception, he had no arms. During infancy, he sucked his toes as other children do their fingers. At nine months he crepted, drawing his body forward by his feet. At eighteen months he commenced walking, and shortly after this period, about two years of age, his spine became affected with rickets. This disease he laboured under until a year or two ago, and it has left great deformity of the spinal column. All the dorsal or thoracic vertebrae must have been much diseased, and no doubt this affection was aggravated by the want of arms. He must have received many falls while learning to walk; the only support for the head and body while sitting being the spine.
Through the kindness of Mr. Nellis, I am enabled to give the following description of his present condition. He has permitted me to examine all his deformities, congenital or natural and accidental or acquired. He is five feet four inches high. Head well proportioned—countenance very pleasing and intelligent. Neck natural; (wears a common size stock,) chin covered with beard. Body very short, owing to great curvature of the spine, which is inclined to the right side and projects posteriorly, producing quite a hump-back. Felt through the clothing, or even through the skin, this deformity of the spinal column, is not unlike an arm bound down closely upon the posterior and right lateral portions of the thorax. It is not improbable that from this circumstance, Mr. Nellis has been often accused of being an impostor, that he in reality had his arms and hands tied to the chest under his clothing. On each side where the arms should have been attached to the body, there is a small nipple, not unlike the nipple on the male breast, but without an areola, and the place for the axilla or arm pit, two to three inches below the acromion processes, is covered with black hair an inch or more in length. The clavicles and scapulae appear to be natural, the acromion processes projecting considerably outwards and anteriorly.—The chest is not well formed, owing to the deformity of the spine. Mr. Nellis wears an abdominal supporter, or common belt, and which he cannot well dispense with, particularly in walking. His inferior extremities appear long when compared to his body; they are well developed, as might be expected.—The right foot is from a half to three-fourths of an inch longer than the left, which approaches somewhat the club-foot. This Mr. N. attributes to the left foot being turned on its external edge, in cutting paper, &c. and to his employing it to hold the objects upon which he operates with the right. Also to the curvature of the spine throwing the greater weight of the body upon the right side. With the big toe of either foot, however, he can throw a 56 pound weight five yards. He can also raise 160 pounds with his teeth. He says he now enjoys excellent health. Appetite very great, takes free exercise, but cannot walk as far as common persons.

As to his performances with his toes, they are truly astonishing—strikingly exhibiting to what extent by art, they can be adapted to the offices of the fingers. To prove this, I cannot do

better than present to the reader the variety of these performances, and with which I conclude this article.

1. With scissors in toes, Master Nellis will cut Valentines and watch-papers, very ingeniously; and will also cut the likeness of any person very correctly.

2. He will make a paper fly-box, and fold a letter in the true love style.

3. With pen in toes, he will write a very fair hand, and execute several drawings of animals, birds, fish, &c.

4. He will open and wind up a watch, take out and put in the crystal with perfect safety, open penknives, screw up his ink-stand, lock his desk, &c.

5. With bow and arrow, he will shoot at a quarter of a dollar. This performance invariably astonishes the beholders, by the almost unerring aim with which the archer uses his bow and arrow.

6. On the violincello, Master Nellis will perform an accompaniment truly astonishing.

7. He will sing a number of songs, and conclude his exhibition with dancing a favorite hornpipe.

The skill and dexterity with which Master Nellis uses his toes as a substitute for hands, is a most striking example of the manner in which human ingenuity will seek out the means of supplying the deficiencies of organization, to which some unfortunate individuals of the human family are subject.
ARTICLE III.

Anatomical Anomalies: By B. B. Strobel, M. D., Lecturer on Anatomy and Surgery, Charleston, S. C.

Variations from the regular standard, in the arrangement of the structure of animals, are of so frequent occurrence, that they have not failed to attract the notice and consideration of those who devote themselves to the study of their organization.

The different classes of animals vary from each other, not only in their peculiar modes of formation, but also present peculiarities in respect to the frequency and character of organic deviations. As a general rule, the inferior order of animals present fewer examples of these occurrences, than those of a higher class. This has been explained upon the supposition, that the former, being more simple in their arrangement, possess a smaller number of parts, and from this cause are less liable to depart from the rule. Independent however of this, the power which presides over their formation, is not disturbed in its regular action, by the multiplicity of directions which it is compelled to take in creating a large number of organs; nor by the excessive exaltation of other powers co-existant with the formative.*

It is not my intention to enter into a consideration of the causes which it has been supposed influence and determine these variations. However plausible and ingenious the theories which have been advanced, we are still left a prey to conjecture and doubt. Nor can we ever reasonably expect to unravel the secret operations of nature, which are not for the most part cognizable by our senses. It is not destined for mortal hands to lift the veil behind which she performs her mysteries.

But however fruitless the search after ultimate causes—effects are evident and within the scope of our perceptive powers, and it is a matter of vast importance that we should carefully note these observations, which are calculated to embarrass us in the discharge of our professional duties. The human frame presents us with innumerable instances of departures from the normal standard. No two individuals are formed precisely alike, if

* Meckel Anatomie Comparée.
we consult the minutiae of their arrangement, and it would fill a volume to collect and arrange all the anomalies which have been noticed by different authors. Nor indeed are they of much practical importance, when they occupy certain organs, but they become highly so when they exist in positions within the compass of surgical operations.

Of all the organs of the human body, those of circulation and locomotion present the most frequent examples of all kinds of deviations, especially in regard to form. They seem to manifest a disposition to ramify and divide.

Meckel has seen ten anomalous origins from the arch of the aorta. It has been remarked, though rarely, that the arteries are blended into a lesser number of parts, which but for this accident would have remained separate. Certain portions of the nervous system, particularly the central, are often wanting, constituting acephali. Some glands, particularly the testicles, present peculiarities in regard to their positions. The eyes have a tendency to form but one, on the median line.*

During the last four years that I have been engaged in anatomical pursuits—I have had occasion to remark several anomalies—I may safely say that I have never carefully dissected a whole subject in which I have not found some deviations, and I have thought it advisable to communicate the following through the medium of your journal. Let it not be supposed, however, that I am disposed to claim the credit of being the first to discover and describe them; on the contrary, I have no doubt that they have been seen and described by others, and I merely give the result of my experience as confirmatory of their observations.

And first of the Muscles.—I once saw the first or superior digitation of the serratus major anticus, arising from the first and second ribs, and passing upward and outward to be inserted into the superior angle of the scapula, opposite the insertion of the levator anguli scapulae; the aponeurotic fibres of the two muscles being in connexion at their insertion. The second digitation of the serratus arose from the third rib, so as to leave a distinct interval between it and the first, the interval being filled with cellular and adipose tissue. The superior portion of the

* Meckel.
serratus was thus constituted into a separate muscle, and fairly entitled to be called the *depressor anguli scapulae*.

On another occasion, the two *recti* muscles of the *abdomen*, arose from nearly the whole length of the anterior part of the sternum, the aponeurotic fibres being in connexion with those of the *sterno cleido mastoid muscles*, which descended on the anterior part of the bone to meet them.

I have in my possession a preparation showing the two *sterno cleido mastoid muscles*, uniting at an acute angle to form a common tendon at the upper part of the sternum. This tendon passes on the anterior part and median line of that bone, to terminate in a point, opposite the fifth rib, and gives attachment on either side, to the aponeurotic fibres of the corresponding *pectoralis major muscle*.

*Secondly of the Arteries.*—During one winter's dissection, I met with the high division of the *brachial artery*, in three successive subjects, and in one this distribution existed only in one arm, the other presenting the usual arrangement.

My friend Dr. B. B. Simons, has a preparation showing a large branch, (nearly equal in size to itself,) given off by the *profunda femoris* soon after it separates from the *femoral artery*. After leaving the *profunda*, on its internal side, this artery divides and sends branches to the *rectus femoris crurcus, vastus externus* and *internus muscles*. The usual distribution exists in the other limb. From the fact of this artery having been first seen and described by Soemmerring, it has been called *arteria descendens Soemmerringi*.

In one of my preparations, the *aorta* gives of one *renal artery* on the right side, and three on the left. The inferior being separated from the two superior, by an interval of more than an inch. In the same preparation, the *coeliac artery* originates but two branches, the *coronary* and *splenic*; the *hepatic* being subsequently derived from the *coronary*.

The last anomaly which I shall mention is the one which I have endeavored to illustrate by a drawing, and which, through the liberality of the Editors, has been lithographed for the Southern Medical and Surgical Journal.

"It is not uncommon to meet with two *hepatic arteries*, of which one comes from the *coronary artery* of the stomach, and the other from the superior mesenteric. Sometimes the number
of hepatic arteries is even increased to three; a first arising from the coronary, a second from the superior mesenteric, a third from the coeliac trunk.* Murray mentions the following anomalies of this artery. That it sometimes arises from the coronary, in which case the left hepatic is commonly wanting.—Sometimes also it comes from the superior mesenteric.† In my preparation there are two hepatic arteries, one arising from the coeliac, the other from the superior mesenteric. It will be seen by reference to the lithograph, that after giving off at its upper side, the inferior diaphragmatic arteries, the coeliac divides into three branches, the left hepatic, the coronary and splenic. The peculiarity of the left hepatic, consists in its origin, and in its giving off the pyloric artery, which usually comes from the common trunk of the hepatic previous to its division into right and left. After originating the pyloric and some small branches, the artery passes up to the inferior surface of the liver, enters the left extremity of the transverse groove, and terminates by ramifying throughout the left lobe. The peculiarity of the right branch consists in its origin from the superior mesenteric, and in its giving off the right gastro epiploic and cystic arteries. Having reached the inferior surface of the liver, it buries itself in the left extremity of the transverse groove of that organ, and terminates by ramifications in the right lobe.

*Cruveilhier Anatomic Descriptive.
†Murray on the Arteries.
A. Section of the Abdominal Aorta.
B. 12th Dorsal Vertebra.
C. C.C. 12th and 3rd Lumbar Vertebrae.
D. Inferior Diaphragmatic Arteries.
E. Celiac Artery.
F. Splenic Artery.
G. Coronary Artery.
H. Left Hepatic Artery.
I. Pyloric Artery.
K. Superior Mesenteric Artery.
L. Right Hepatic Artery.
M. Right Gastro-Eppliotic Artery.
N. Superior Right Colic Artery.
O. Renal Arteries.
P. Spermatic Artery.
Q. Inferior Mesenteric Artery.

From Kenmna's Lithographic Press.

Cord 3rd, Charleston.
ARTICLE IV.

Hysteritis Chronica with Cases: By Isaac Bowen, M. D.

Although the disease under consideration is a chronic affection, as observed in this and tropical climates, still the fever which accompanies it, is a cauma, sometimes, however, in miniature, as will appear from its description and treatment.

The penultimate and final syllables of the class of diseases, to which hysteritis belongs, viz. *itis*, is derived from the Greek word *αιτίας*, which is a ramification of *αιτήσις*, and implies not merely sluggish action, but "violent and impetuous action."

It is imperfectly described in Good's study of medicine, under the name of hysteritis simplex, but the best description which I have seen, is to be found in "Dewees' Treatise on Females," under the appellation of "irritable uterus." I could not pretend to give a better account of the diagnostic symptoms than is laid down in that excellent volume; but as my observations have been in a climate many degrees warmer, where the complaint occurs oftener, and as I have sometimes varied from his treatment, although perhaps not essentially, it will not be considered fastidious, that I should attempt to describe the disease as it exists in this climate. Another reason is, that the complaint is oftener mistaken in the southern States for *prolapsus* uteri, than in Philadelphia, and oftener still for gravel. The reason of such mistakes is, undoubtedly, because it has many symptoms in common with those maladies.

The attack of hysteritis chronica is not, like many other local inflammations, often, if ever, ushered in by a chill, although it frequently comes on quite suddenly, and is attended with more or less fever. Sometimes the fever is so slight that it can scarcely be noticed, except by the increase of frequency and fullness of the pulse, and flushed face in the afternoon. The uterus lies somewhat lower in the vagina than usual, is enlarged, particularly at the neck and os tincæ, and is so sensible to the touch as frequently to cause the patient to distort the countenance by the operation. In severe cases, the whole uterus is enlarged, but generally the inflammation only extends to the mouth and neck.
of the organ. One lip is generally more swollen than the other. There is an obtuse pain in the back, which often extends to the hips, and sometimes produces the sensation of heaviness or gravitation. The os tinea is sometimes open, so that often the point of the finger can easily be introduced, although not without pain to the patient. "The stomach usually sympathizes 'with the uterus, so as to give rise to a train of very harrassing, dyspeptic and nervous symptoms.'—(Eberle.) The part of the uterus, which is inflamed, may be known by the region in which the suffering is felt. Astruc says, "Cette douleur de la matrice est rapportée par les malades à differens endroits du bas ventre, suivant le plus ou le moins de proximité de ces endroits avec le siège de l'inflammation, ou suivant la communication plus ou moins grande, qu'on ces endroits avec la partie enflammée de la matrice, soit par les vaisseaux sanguins, soit par les ligaments de la matrice, soit par les expansions du péritoine, qui attachent la matrice par les cotés. C'est ainsi que les malades se plaignent de la douleur des lombes quand l'inflammation occupe la partie postérieure du fond de la matrice; de la douleur du nombril, quand l'inflammation occupe la partie antérieure du meme fond, de la douleur du pubis ou de l'anus quand l'inflammation est au col de la matrice en devant ou en derrière, de la douleur de l'une ou de l'autre des aines, des hanches, des cuisses, quand l'inflammation est à l'une ou à l'autre des parties latérales de la matrice, d'où naissent les ligaments ronds, &c."—(Maladies des Femmes—Tom. 3. liv. 2. p. 20.) The same symptoms have since been described by many writers, both European and American, but not differing essentially from this author, who wrote about eighty years ago.—Menorrhagia or leucorrhoea frequently accompanies or precedes this disease. The bowels are generally costive, or alternate with looseness and constipation. The pulse is preternaturally full, and is at its acme in the early part of the afternoon, at which time a hectic flush may be seen upon the face. The patient complains of pain in the hinder part of the head, and sometimes in the anterior part; the tongue is of a pale white colour, and as Dewees justly remarks, "towards evening it reddens and becomes clearer." When the irritation extends to the neck of the bladder, it produces strangury and sometimes an inability to urinate.

The patient is much the most easy in a recumbent supine posture, with the lower extremities slightly drawn up, as the pres-
sure of the other viscera does not interfere so much with the uterus.

As it regards the cause of this disease, there exists some obscurity. In most of the cases, which have come under my observation, the patients have assigned cold as a cause. This may often have its effects, where other causes catenate in the complaint. In many cases which I have attended, menorrhagia has preceded chronic inflammation of the uterus, and in some for a long time. I think the relaxing state of the climate, together with the sudden changes which often take place, has a predisposing influence; so that the exposure which females often undergo on account of thin clothing, tends to throw the blood upon the internal organs with more force than natural. This being frequently repeated, may produce the effect upon those females who are very susceptible. In slight cases, the uterus is capable of impregnation.

No disease can require the antiphlogistic method more steadily applied, than the one under consideration. Tonics of no description will agree with the patient, until the disease is completely at an end.

The first step to be taken is the abstraction of a sufficient quantity of blood to relieve the pain, which is seated in the head. In cases that are not severe, fourteen ounces or less of blood will be sufficient; but frequently if the health is not restored in a few weeks, smaller quantities must occasionally be taken. In general the application of a blister above the pubis, will be an excellent auxiliary; but sometimes one applied to the sacrum will have a better effect, particularly if the posterior part of the uterus is principally affected. As a local application, cupping or leeching will have a powerful influence, and, in some cases, supersede the necessity of blisters. When these topical applications fail to restore a sound state of the uterus, a seton, inserted in the inner side of the thigh or in the sacrum, will be highly beneficial, and sometimes perfect a cure. Demulcents applied to the os tincce, by introducing them into the vagina, will produce a very fine effect, and ought never to be neglected. For this purpose, a mucilage of flax-seed will generally answer the purpose, but I have always found that made of the root of comfrey (symphitum officinale) preferable to any other mucilage I have used.

Many physicians, on account of the fallen position of the ute-
rus, have thought the intervention of a pessary proper, mistaking the real nature of the case for prolapsus, or procidentia. This fact cannot be better illustrated than by inserting the words of Dr. Dewees on the subject. He says, "the irritable uterus is however more frequently confounded with prolapsus uteri, than with any other complaint, as the local symptoms of the latter are a miniature representation of the former. And as the womb is almost sure to descend more or less in the irritable uterus, this precipitation has been supposed to be the cause of all the inconveniences experienced; and hence, the frequent failures of the pessary, when it had been applied for the relief of the prolapsus. Nay, sometimes serious and permanent injury has been done by this instrument in these cases, without the practitioner being exactly aware why mischief should be caused by a machine that has been so often successful in cases so apparently alike."

Nevertheless, I have in some instances made use of a pessary, or rather poultice formed by filling a little bag with the mucilage of symphytum officinale, and applying it as a pessary. I have often found this mode of applying mucilage preferable to that of administering it by injections.

After a proper reduction of the system by venesecion, opium or the sulphate of morphia, will tend greatly to diminish the painful or uneasy sensations, which are felt in the uterine region, and calm the whole system. I have found the extract of lettuce to answer a better purpose, given in doses of three grains, than opium, because it did not affect the head at the same time that it gave quiet and repose to the patient.

During the whole progress of the complaint, the patient ought generally to remain in a recumbent posture.

It was thought by Frederick Wilhelm von Hoven and Boerhaave that this disease was sometimes of a typhoid nature, because it could be successfully treated with camphor and opium, which they very properly considered stimulants; although some other physicians would make a different decision, by considering them contra-stimulants. The first says, "Bey der esthenischen Gebarmutterentzündung ist allein die asthenische Methode angezeigt, und die Hauptmittel sind innerlich das Opium und der Kampher, und äusserlich Kataplasmen, Fomentationen von aromatischen Krautern. Enmreibungen hingegen von dem flüchtigen Linament, Vesicatarien, warme Bader kennen nur mit der
grosten Vorsicht angewendet werden."—(Entzündung der Ge-
barmutter—erster Band, seite 290.)

When we take into consideration that tonics never fail to do
mischief, we may naturally conclude that the above opinion of
the Professor of Würzburg, is erroneous. All medicines which
increase the tension of the fibres are injurious.

In conclusion of the above plan of treatment, it is necessary
to state that it will be important to attend to the state of the
bowels, by giving occasionally mild purgatives, in order to over-
come the constipation that often attends hysteria chronica.—
For this purpose magnesia and epsom salts will be a good selec-
tion.

Case 1.—On the 20th of February, 1826, I was called to at-
tend Mrs. L., who was laboring under an affection of the uterus.
She had been previously attended by a physician, who had ad-
ministered the arsenite of potass as a tonic, which had produced
an aggravation of the symptoms. On examination, digito per
vaginam, the mouth and neck of the womb were found consid-
erably enlarged, flabby, and somewhat sensible to the touch.—
The organ was completely prolapsed from its natural location,
with the os tineæ nearly or quite resting upon the perineum.

Conformably to the advice of a highly reputable physician, a
pessary was introduced to retain the uterus in its natural posi-
tion. The pessary remained until the twenty-second, when it
was withdrawn, and after a few hours re-introduced. On the
twenty-third, the patient complained very much of the pain and
irritation which it had caused, and declared that she could not any
longer bear it. I became convinced in the justness of her com-
plaints, and, accordingly, withdrew the instrument. After the
abandonment of the pessary, injections of the mucilage of sym-
phitum officinale were thrown into the vagina, and a blister ap-
plied over the precordia which seemed strongly to sympathize
with the uterus. After that had healed, it was applied immedi-
ately above the pubis, which naturally produced a better effect.

The symptoms of the disease were now less violent, and as the
uterus was prolapsed again, a linen bag in the form of a pessary,
filled with the mucilage of comfrey-root, was introduced, after
reducing that organ. This article was used instead of the al-
thæa officinalis or guimauve, recommended by Astruc in his
"Maladies des Femmes." It seemed to act as a soothing poul-
tice, and on account of its lubricity, was easily introduced and withdrawn by the patient. After venesection had been resorted to, the pulvis Doveri, in doses of five grains, was found a very useful auxiliary, but after sometime was increased in dose in order to procure repose. At length one grain of opium alone was given. As the opium had some tendency to affect the head, the inspissated juice of lettuce was substituted in doses of three grains. This seemed equally to calm the irritation of the uterine region, without producing any unpleasant effect upon the sensu-
mrium. Under this treatment, the patient gradually although slowly approximated toward health, and was completely restored by the introduction of a seton.

Case 2.—In the month of June, 1832, I was consulted by a lady, who said she had been for a long time troubled with a disease, which her physicians called the gravels, but she had not experienced any relief from the treatment, which they had directed, and she thought they might have mistaken her complaint. By interrogation, I soon discovered that she was suffering under chronica hysteritis, and directed her as much as possible to remain in a recumbent position, and to use mucilaginous injections per vaginam, &c. I afterwards learned that she was relieved by those means.

Case 3.—In the month of September, 1832, I was consulted by Mrs. F., complaining of uterine irritation, who had been using a pessary without experiencing any relief. On examination, digito per vaginam, I discovered an enlargement of the os et cervix uteri, with tenderness to the touch. Some arterial excitement, with flushed face, occurred in the evening. After venesection to the amount of twelve ounces, I ordered injections of the mucilage of flaxseed, as the root of the symphitum officinale could not be obtained. Her case was gradually ameliorated.

Case 4.—March 6th, 1833, I was called to visit Mrs. B., who was complaining of misery in the pelvic region. She said she had been troubled with prolapsus uteri, for more than a year, and had at the time an infant several weeks old, that her physician said, after her delivery would be the most favorable opportunity, for reducing the prolapsus, that she had since used a pessary, but thought it had done her injury, and had accordingly fallen out with her physician.

On examination, digito per vaginam, the uterus was found
considerably lower than natural. The slightest impression upon the os tinae, gave such pain as to cause great distortion of the countenance. As was to be supposed, the uterus was enlarged and considerably inflamed. Her face was much flushed in the evening, and she complained at that time with some pain in the head.

She was for a few days restricted to a low diet, a recumbent position, and mucilaginous injections per vaginam. In a week, although contrary to my advice, she was seen "battant le pavé et courant les boutiques."

Case 5.—June 11th, a negro woman came to my office saying that she was not well, but that her master and mistress thought she complained without a cause. On interrogation, I was suspicious of an irritable state of the uterus, but refused to do anything for her relief without permission of her owner.—The same day she brought word, that her master desired me to prescribe for her.

On examination, digitoper vaginam, my suspicions were confirmed. The inferior parts of the uterus were considerably enlarged, and quite tender to the touch. I advised mucilaginous injections per vaginam, and the recumbent posture as much as practicable. As these cases are generally slow of recovery, her master was not satisfied with the treatment, and called in another physician, who introduced the pessary—a much better mode of making a large bill and of adding fuel to the fire,—but it evidently proved detrimental to the patient. She was, in consequence sold for less than her real value.

Case 6. April 2, 1834, I was called to visit Mrs. P., about 45 years of age, who had been for several years complaining of hysteritis chronica. The inferior parts of the uterus were enlarged and tender to the touch. She said she had consulted several physicians, who generally agreed that she would find much relief from the use of a pessary. Afterwards another was called in, who concurred with his predecessors in the use of a pessary. Accordingly a silver one was introduced, (I think about twelve o'clock M.) and at two or three P. M. the pain it occasioned was so intolerable, that she was compelled to send for her physician to take it away.

Her face was much flushed and head painful. On examination per vaginam, the uterus appeared much enlarged and very
sensible to the slightest impression of the finger. I immediately abstracted sixteen ounces of blood from the arm, put her upon a low diet, advised mucilaginous injections per vaginam, and strictly enjoined the recumbent posture. Her case gradually improved, so that she was able to quit the bed, and attend to domestic concerns. I do not know that she is entirely well at this time, but she has received great benefit from the course advised.

From my own experience in uterine diseases, I doubt if simple prolapsus, i.e. unaccompanied with hypertrophy, or uterine irritation, and enlargement of some part of the organ, often takes place. When it does become irritable or sensible, in consequence of its fallen position, I have no doubt that a pessary, made of comfrey-root in the manner described in the first case, would fulfil every necessary indication, unless the disease had produced general arterial excitement.

*Augusta, January 11, 1837.*

---

**ARTICLE V.**

*Remarks on Pneumonia Biliosa: By Ignatius P. Garvin, M. D., of Waynesborough, Georgia.*

Although the inhabitants of malarial regions are in a great measure exempt from those subacute and chronic inflammations of the respiratory organs, which are common and so fatal in higher latitudes and in a purer atmosphere, yet they are by no means free from a liability to the more acute forms of pulmonary disease. During the winter and early part of the spring, a very severe and often fatal form of thoracic inflammation, prevails to a considerable extent. The ordinary fevers of these sections in acclimated subjects, when compared with this form of disease, are but trifling indispositions, and a large proportion of the deaths which occur amongst the adult population, happens during these seasons, and from this cause. This modification of pulmonary inflammation from some symptoms which usually
accompany it, has received the name of bilious pneumonia.—Yet as the hepatic disorder is by no means the primary modifying cause, and as it is to the gastric irritation which always exists, and to the symptoms thereby sympathetically produced, that the disease under consideration owes most of its peculiarities, the term gastric pneumonia, would seem more consonant to sound pathology.

It is to be regretted that a disease so violent in its nature—so fatal in its consequences, and of such frequent occurrence, should not have excited such attention among the physicians of the South, as would have induced some of those most experienced in its management, to furnish their views of its nature and treatment. Some of the older European writers have noticed this modification of disease, but their works are in the hands of but comparatively few members of the profession. The elementary works, with but one exception that we can call to mind at this time, are silent upon the subject. Eberle has given it a brief notice, but it is neither so full nor so minute, as the importance of the subject demands. The writer is not so vain as to imagine, that the imperfect observations which are to follow, will supply this deficiency in our medical literature, but they are offered with the design and hope that they may elicit the views of others better qualified for the task.

No age or sex is entirely exempt from the attacks of bilious pneumonia, yet females and children, probably from less exposure to the inclemencies of the weather, seem to be less liable than males. Negroes seem to be less subject to its attacks than the whites, though they are more liable to the simple form of pneumonia—partly from greater exposure and partly from their physical constitution. The peculiarity in their organization seems to consist in an inferior sensibility in the cutaneous surface, and a less degree of activity in the capillary circulation, and consequently in the same degree that it exempts them from the diseases generated by heat, renders them more liable to those which are produced by cold. Individuals who have labored under malarial fevers, during the autumnal months, seem to be more liable than those who have escaped, and these last if they have been constantly exposed to the action of malaria, seem to be more subject to an attack than those who have resided in a dry and healthy location, during the season when febrifug exha-
lations are most rife. This greater liability among the sufferers from fever, seems to result from the disordered state of the digestive organs, which seldom recover their usual healthy tone, immediately upon the subsidence of the fever. It is a fact that but very few of those who suffer from severe attacks of autumnal fever, entirely regain their usual health and strength for some months, and this proves that the organs have not during that period, recovered their healthy tone, else ordinary strength would sooner be restored. Even in milder cases, a protracted convalescence of these organs occurs to some extent. When, therefore, an individual, with his digestive organs thus predisposed to disease, is attacked with pulmonary inflammation, it is not at all surprising that the symptoms which characterize bilious pneumonia, should present themselves. We think it highly probable, that the previous fever which generates this predisposition to gastric disorder, also leaves a predisposition to inflammation of the respiratory organs. The impetuous flow of blood through the pulmonary vessels, during the continuance of the fever, and of that excited condition of the circulatory organs which often continues for some time after its subsidence, necessarily produces a pulmonary irritation, which though it may not be of sufficient magnitude to excite much attention, nevertheless renders the lungs more than ordinarily liable to inflammation.

The ordinary causes of simple pulmonary inflammation, acting in combination with such circumstances, as tend to produce gastric irritation, or upon a system where such irritation already exists, are the usual causes of bilious pneumonia. Eberle attributes the disease to the combined action of atmospherical vicissitudes and malaria. It is highly probable that it is sometimes thus produced, yet such cases must be comparatively rare, as miasmatic exhalations do not occur to much extent, during the season when the disease most frequently appears. Some of the older writers state that it has prevailed as an epidemic, but such an occurrence has not come under our observation.

Bilious Pneumonia is usually ushered in by chills or rigors. In some cases there are premonitory symptoms, such as usually precede an attack of fever, whilst in others, the chill or ague is the first notice of the invasion of the disease. In some instances the patient has labored under catarrh, or intermittent fever, for some days previous to the attack, and under these circumstan-
ces, the pneumonic symptoms come on more gradually. The cold stage is not usually of great duration, and as it subsides, the patient experiences pain in some part of the thorax. The pain is of a dull, obtuse character, and suffers considerable aggravation from the cough which accompanies it. During the first few hours the cough is generally dry, but soon there is a scanty discharge of tenacious mucus, often stained with blood, and expectorated with some difficulty. The breathing is hurried, though the patient does not usually complain of any peculiar difficulty in resiping. The stomach is irritable, and vomiting is a frequent, though not an invariable occurrence. The matter rejected from the stomach is in some cases mixed with bile, but in others, it appears to consist of the depraved gastric secretions alone. The bowels are usually torpid, until laxative medicine is administered, and then it frequently happens that diarrhœa appears. Sometimes this symptom is present from the commencement of the disease. Soon after the development of the disease, the middle of the tongue becomes covered with a brownish coat, whilst the tip and edges are clean and red. The appetite entirely disappears, and the thirst is very considerable. In almost every case there is pain in the forehead, but the mental faculties are rarely disturbed during the earlier stages of the disease. The skin is hot and dry, and the pulse frequent and full, though it rarely offers much resistance upon pressure. Its frequency is seldom less than 120 beats in a minute, except during the remission. Indeed we consider this frequency of pulse as almost characteristic of the disease, as we have very rarely found it so frequent in the unmixed form of pneumonia. There is usually a morning remission, more or less distinct, as the gastric or pneumonic symptoms predominate. In some few cases, there exists from the commencement of the disease, a degree of cerebral congestion, evinced by a red, swollen face, and stupor, which entirely masks the ordinary symptoms. When the patient is roused, though apparently rational, yet he generally denies the existence of any pain. Yet we will generally find upon enquiry, that the patient has a slight cough, though it has scarcely been noticed previous to the investigation, and the pulse presents a frequency which can only be accounted for on the presumption of some other considerable irritation. When in such a case, the cerebral congestion is removed by the application of
proper remedies, the usual symptoms of bilious pneumonia speedily manifest themselves.

The most common duration of the disease is from seven to ten days, yet we have seen a fatal termination occur in forty-eight hours, and other cases, where it continued to a much longer period. It sometimes happens when the pneumonic inflammation is inconsiderable in extent and degree, that it will subside before there is much reduction in the gastric disorder; but most commonly they proceed pari passu. It rarely terminates suddenly and by a sensible crisis, the symptoms in most cases subsiding gradually.

The gastric disease which exists in bilious pneumonia may also accompany bronchitis, or pleuritis, and it not unfrequently happens, that the modification under consideration, is blended with some degree of these affections. When this occurs, the disease will present symptoms differing somewhat from those usually exhibited by bilious pneumonia. Yet to distinguish between these various modifications, is not of much practical importance, as in all these cases our treatment is to be governed by the same principles.

As cases of bilious pneumonia present many shades of modification, from the various degrees of relative intensity of the pneumonic and gastric disorder, a corresponding modification will be found necessary in the treatment. In a large majority, indeed we may say in every case, in the early stage of the disease, venesection may be practised with safety and benefit. We are aware that a different opinion prevails to a limited extent, but we feel confident that in the sentiment we have advanced, we shall be sustained by the great body of the profession. The lengths of the stage in which bleeding will prove beneficial, varies according to the relative intensity of the gastric and pulmonary disease. When the former predominates considerably, this stage is much shorter than where the contrary obtains.—Indeed in the former case the use of the lancet may be omitted, with less hazard, than one not familiar with the disease might suppose. Yet we would by no means advocate its omission in such cases, as its judicious use even there will materially expedite the cure. It is impossible in this, as in many other diseases, to affix the precise limits to the stage in which venesection may be beneficially practised. It is, we believe, never shorter than
one day, and sometimes continues through several. In most cases one full bleeding will suffice. The blood should be suffered to flow until a decided reduction, and softening of the pulse are effected. In some instances, a repetition of the remedy will be necessary, but we are persuaded that such cases are rare, or in their nature approach very nearly the simple form of pneumonia. We are under the impression that negroes in general do not bear considerable sanguine depletion so well as whites, and when from any cause we are unable to apply this remedy in their cases, we feel more confident of success from our other remedial means, than we would in the case of a white man, under similar circumstances. Whilst a few may be disposed to consider us as advocating too general a resort to the lancet, there will probably be many others, who will dissent from an application so moderate. In simple pneumonia, we have no fears in relation to its free use. With Gregory we believe, that "the danger of a large bleeding is less than the danger of the disease," yet in the complication under consideration, we are fully satisfied, that very large and repeated abstractions of blood, are likely in many cases to prove highly injurious, and have tended much to bring the remedy into disrepute.

Although bloodletting is a remedy of so much power in the simple forms of thoracic inflammation, and is so necessary in most cases of bilious pneumonia, yet it rarely affords such full and prompt relief to the pain in the latter, as in the former, neither does it seem to exert much influence upon the gastric symptoms. We are therefore compelled to resort to other means to arrest the progress of the disease; and among these the most important is calomel. From the acknowledged action of this medicine upon the liver, and from its beneficial effects in the disease in question, we doubt not, have sprung those pathological views, which have given to it the epithet bilious. But as we hold that the gastric irritation is the primary modifying cause, and that the hepatic disorder is only incidental, and yet unite with those who hold the opposite opinion, in recommending the use of calomel, it may be well briefly to explain our views of its modus operandi in such cases. We believe that in this disease, the liver is usually in a torpid condition, at least that its functions are partially suspended, and that this suspension is not the product of hepatic irritation. This peculiar state of the liver is the result of the
concentration of the vital powers in the stomach. Under these circumstances, calomel, if not administered in large portions, does not increase the irritation already existing in the stomach, for we know that externally applied to inflamed surfaces it has no such effect, but it is absorbed and carried in some form or other into the circulation, and then excites those organs on which its principal powers seem to be expended. The liver in particular it stimulates powerfully, and from the great size and vascular structure of that organ, its effect is strongly revulsive. If its use be too soon discontinued, the benefit will prove transient, and the organs will speedily relapse into their former condition. Under no other view of the state of the liver could we feel fully justified in expecting benefit from the use of mercurials; for if that organ was in an irritated state, how could we rationally expect, that the addition of more irritation, would remove that which already existed. We are aware that the opinion has been advanced, and has its advocates, that when the liver is irritated, calomel will remove the irritation, and when it is in a sluggish condition, that it will excite it. Such an opinion reminds us of the man in the fable, who blew hot and cold with the same breath, and for an exhibition of this faculty was summarily ejected from his quarters by his indignant host—a treatment well worthy of the notion in question. We are aware that the "physiological doctrine" affirms that hepatic is a necessary consequence of gastric irritation, and consequently that the symptoms of hepatic derangement must be the result of irritation. In conformity to this theory, they reject the use of mercurials in such cases, yet the most ample observation, in almost every quarter of the globe, by men of various powers and conflicting views, has demonstrated that they are the most effectual remedies we possess in this particular state of the digestive organs. Either the theory of Broussais is founded in error, or all observation is to be disbelieved and forgotten. Many arguments and facts might be adduced in favor of the view we have taken, did the occasion permit so considerable a digression. Whether the views we have advanced in relation to the modus operandi of calomel in such cases be correct or not, ample observation has proven it to be one of our most important remedies in the treatment of bilious pneumonia. After bloodletting, and in small doses combined with opium or Dover's powder, and repeated at intervals until the
evacuations shew that it has exerted its peculiar stimulation upon the liver, it will powerfully contribute to the extinction of the gastric disorder, which besides giving to the disease most of its peculiarities, also lends to it much of its danger. We have rarely known the black and tarlike stools which often follow its use, to fail in being succeeded in a few hours, by a decided amendment. In this, as in all other cases where we desire its stimulating action upon the liver, we should prescribe it in doses of such size, as will not pass rapidly through the bowels, but act if at all, merely as a laxative. After the small doses have been continued for some hours, the bowels should be gently acted upon by castor oil, or some other mild laxative, if the calomel itself has effected no evacuations. This course may be repeated daily, should the violence of the symptoms demand it, until the gastric disease seems subdued. Salivation is not of such frequent occurrence in the disease under consideration, as it would be in fever under a similar administration of mercurials.

Blisters are also important remedies in bilious pneumonia, but their application must be delayed until the excitement is materially reduced, else little or no benefit can be derived from their use. When, however, this reduction is effected, we have no more powerful means of removing the inflammation, some degree of which always remains, even after depletion has been carried to its fullest extent. Some difference of opinion exists as to the proper place for their application. Dr. Meriade Laennec, in a note to the work of his illustrious kinsman, asserts that "good practitioners never apply them in the first instance to the chest, but to the legs, thighs, and inside of the arms." Notwithstanding the declaration will bring us under the censure of this learned annotator, we feel no hesitation in expressing the opinion, that the chest is the very best place for their application, and this we believe is the sentiment of a great majority of the good practitioners in our country. Even the great author to whose work this sentiment is appended, though not very favorable to blistering, points out no place as preferable to the chest. We are persuaded that but few persons will be found to agree with another sentiment contained in the note from which we have just quoted, which is, that when blisters fail to act as derivatives in cases of pneumonia, "they still operate beneficially by exciting temporarily the powers of the system; and thereby rendering admis-
sible further bleedings.” Our observation has satisfied us, that where they fail to act as derivatives, they very rarely fail to prove injurious. Before the inflammatory action is sufficiently reduced to permit the application of blisters, considerable benefit may be obtained by a long continued use of warm poultices to the seat of the pain.

Drastic purgatives are seldom admissible, but laxatives are important auxiliaries in the treatment. Such articles as act without producing much intestinal irritation, will be found most beneficial.

Emetics are recommended by Eberle and others, but except in a few instances, and in the forming stage of the disease, we have found but little benefit from their use. In many cases, they are highly pernicious. We have known the nausea and vomiting induced by an antimonial emetic, to continue during the whole course of the disease, in defiance of every application for their relief. Tartar emetic, given in the mode recommended by Laennec in simple pneumonia, though truly a "heroic" remedy in that form of the disease, will generally be found inadmissible in the complication under consideration, as it always increases the gastric irritation, and thereby enhances the difficulties and dangers of the case.

Expectorants are usually considered valuable remedies in pneumonic disease, but as we are compelled to exclude antimonials from the treatment, our choice of expectorant remedies is reduced within narrow limits. During the early stage of the disease, mucilaginous drinks, such as flax-seed tea, gum arabic solution and infusion of slippery elm, should be used as freely as the stomach will permit. In the latter stages, particularly when the gastric disorder is abated, much benefit may be derived from the decoction of polygala seneka.

The preceding remarks briefly point out the general course of treatment, which we have found most useful in bilious pneumonia. We might have added to the list of articles which are sometimes prescribed in such cases, but we have been content to indicate those means of cure which are of primary importance, and those which are most likely to prove injurious.
PART II.—REVIEWS AND EXTRACTS.

Chomel on Typhoid Fever.

In a former number* we referred our readers to the third number of the British and Foreign Medical Review, and to the first number of the Eclectic Journal of Medicine, for Professor Chomel’s observations on this important subject. Since observing the applicability of these observations to the fevers amongst us, during the past autumn and first half of winter, we have concluded, that, lest many of our readers should not be able to make the reference, we would give a condensed view of the same, which we take pleasure in doing, in the summary contained in the first and second numbers of the Eclectic Journal.

"Fever, Typhoid or Continued, described by Chomel.—The term typhoid fever, is that used by M. Chomel, in his Leçons Cliniques, published two years ago, to express the continued fever of English writers, and includes both their synochus and synocha, as well as typhus. Whilst he regards fever to be a disease of the whole system, he admits its local complications or lesions. Of these some are constant, viz. alterations of the follicles of the intestines and of the mesenteric glands. The follicles are known anatomically by the name of the glands of Brunner and those of Peyer: the first are scattered, the second are in groups. At what time these follicles are first changed, or in what order, we cannot well say. The earliest state at which Chomel had an opportunity of examining their diseased state was on the seventh day, or that on which death took place. Out of fifty-five cases noted by Louis, the most recent was on the eighth day. They are seen at this time, like opaque spots, through the distended and almost transparent intestine at various parts along its course. The larger patches are seen in the ileum and termination of the jejunum, being most numerous towards the ileo-cecal valve and in the upper part of the large intestine. Death during the second period of fever allows of our seeing the follicles changed by ulceration of the mucous membrane, which is the result of the morbid state of the follicles, as it commences over the follicular patches and is confined during this period to these parts. In ninety-two cases closely observed by Chomel and Louis, ulceration commenced from the eighth to the twelfth or fifteenth days from the first attack. The ulceration proceeds from the ileum upwards. More rarely do the isolated follicles ulcerate. In some cases during this second period, the mucous membrane covering the patches becomes of a dark colour, separates from the subjacent tissues, and is observed to be perforated with a large number of holes, giving it a reticulated appearance: these holes are the orifices of the enlarged follicles. Beneath this the sub-mucous tissue is found, or a thin layer of white deposit. If death occurs at a later period, there is sometimes no trace either of the ulcerated or reticulated patches, but merely ulcers, whose edges have no traces of the whitish deposit. The duration and symptoms of the disease will indicate whether these ulcers be the accompaniment of typhoid fever. M. Chomel thinks that in the present state of our knowledge, the ulcers which are formed in the intestines after an acute disease are the result of lesion of the follicles, and not a primary affection of the mucous membrane.

*See Southern Medical and Surgical Journal, vol. i., page 417.
The ulcers are of two varieties—the first with very slight depression below the mucous surface and without any appearance of inflammation; the second are deep, with prominent edges of a slate colour, and extend even so far as to sometimes perforate the peritoneal membrane. The disease of the follicles may after a time disappear either by resolution, or by cicatrization of the ulcers, and the mesenteric glands, which were enlarged, resume their natural size.

There are three other diseases in which diseased follicles have been found, viz. Cholera,\* Phthisis and Scarlatina.

Of the forty-two subjects dead of the typhoid fever, and examined by M. Chomel, all were found to exhibit follicles more or less diseased.

The connexion between the symptoms and the diseased state of the follicles has been carefully studied by M. Chomel. Headache was observed in all but one of the forty-two fatal cases; but as it precedes the lesions we cannot well admit any connexion between them. Stupor, an important symptom, cannot be referred, as some suppose, to the formation of ulcers of the intestine and the absorption of pus, any more than to the exhaustion of the constitutional powers. But between diarrhoea and diseased follicles there seems to be a closer connexion—the former being present in forty out of fifty-two cases of the latter.

Among the changes not constantly met with are alterations in colour and consistence of the mucous membrane of the stomach and intestines. Softening of the gastric mucous membrane occurred in fourteen cases. But we cannot attach much importance to this fact, since, of twenty-four subjects dead of pneumonia, and examined by M. Chomel, there was softening of the stomach in eight. Similar appearances and proportions were observed in peritonitis, small-pox and other diseases. Softening of the mucous coat of the intestines is not common. Neither the colour of the stomach nor intestines is distinctive.

Vomiting and sensibility of the epigastrium were not greater where there was softening than where there was none. Sanguineous infiltration was not distinctive of the fever.

Next to the follicles, the spleen is most frequently diseased, being either enlarged, as in the acute stage, or softened, as in the more advanced—and sometimes harder and drier. The liver was sometimes softened. Louis observed this in about half of his cases.

Organs of circulation.—The heart in seven cases out of thirty was softened, a state coincident generally with a similar state of other organs. In seven other cases out of the number thirty, the walls were flaccid. The softening was attended with paleness. Sometimes the inner membrane was of a lively or deep red; but in no case were there inflammatory depositions. The red condition often observed of the inner membrane of the aorta was probably owing to imbition of the red particles dissolved, since it was in general in proportion to the putrid state of the blood.

The blood is often deficient in fibrin. Air has been found in the blood-vessels, particularly in the veins. Petechie and ecchymoses were observed during life in cases, so that the decomposition of the blood probably commenced before death.

In the lungs, congestion of the posterior and inferior parts was noted in eighteen instances out of fifty-two; in eight cases, there were marks of pneumonia, and in two, pleuritic effusion.

The brain, although its functions are most disordered, suffered fewest appreciable organic changes. Delirium present in half the cases, is not explained by the pathological changes. Edema of the meninges and bloody

\* For a very full and authentic account of the follicular changes in cholera as observed by himself, we would refer to the paper by Dr. Horner, in the American Journal of Medical Sciences, for May, 1835.
points are found, it is true; but these are met with as often in cases where there has been no affection of the cerebral functions as when they have been present, and also as frequently in other diseases as this. In thirty-eight carefully observed cases there was

- Injection (venous) of the meninges
- Edema of the meninges
- General but slight softening
- Serous effusion in the ventricles (from a tea-spoonful to a dessert-spoonful)
- Bloody points
- Increased density
- Healthy state

Causes of Fever.—The exciting causes of the one hundred and sixteen cases which came under M. Chomel's notice are given, as far as could be ascertained by inquiry. But unless the physician have the added testimony of the friends and companions of the sick person, he cannot receive with much confidence the statements of the latter, liable as they are to be distorted from the real facts by ignorance, bad faith, or forgetfulness. In the respect of causes, hospital records are therefore less valuable than those of private practice. The following is the table exhibiting the results of M. Chomel's inquiries:

| 5 | patients attributed it to sudden cold when heated |
| 6 | to deficient or bad food |
| 4 | to mental depression |
| 5 | to debility from other diseases |
| 3 | to the action of a purgative taken for some indisposition |
| 1 | to excess in drink |
| 5 | to excessive fatigue |
| 2 | to a violent physical shock |
| 1 | to the effects of the sun |
| 5 | were exposed to circumstances favorable to contagion |

37

Of the remaining seventy-nine, in the whole number of one hundred and sixteen cases, no cause could be ascertained. However much we may be disappointed at this deficiency of information, we cannot but see in it additional proof of the good faith of the author, and his freedom from any bias of system.

The age at which this fever most frequently attacks is, according to M. Chomel, between eighteen and thirty. It is rarely observed after forty, and perhaps in no case after fifty-five. Under ten years of age it is rarely met with.

Of the whole number of patients more than two-thirds had lived in Paris less than two years, and only two were natives of that city. We well remember, when attending at the Charité, being struck with the uniformity of the question proposed by M. Lerminier to patients with this fever—of how long they had lived in Paris?

M. Chomel, in common with most of the French school, is opposed to a belief in the contagion of typhoid fever.

To describe well the symptoms and progress of this fever, it must be divided into different periods or stages, into the details of which we cannot be supposed to enter on this occasion. The preliminary symptoms of diminished activity of the mind and senses, feebleness, loss of appetite, foul tongue, altered expression of countenance, &c., are well known. But in a great majority of cases recorded by the author, the attack was sudden. There were no premonitory symptoms in seventy-three out of one hundred and twelve cases; although we must take this statement with the customary allowances required for hospital patients, whose accounts of their attack, never
very clear, are rendered still more confused by the fever. The disease is divided by M. Chomel into three periods, of a week in each, in which a peculiar set of symptoms are said to be exhibited.

First Period.—Marked change in phosigognomy, diminished intelligence, apathy, muscular debility and consequent supination, constant wakefulness, or dreams so vivid as to induce in the patient the idea that he has not slept; headache, generally confined to the forehead; thick and glutinous secretions from the mouth and tongue; lips and edges of the tongue red, with a small white border on each side, sometimes preceded by other appearances of this organ. As the mouth dries, there is a uniform red colour of the whole mucous membrane, the lips crack, and the teeth have a brilliant look. There is anorexia, sometimes with nausea and vomiting; dysphagia, great thirst, diarrhoea, almost universally, amounting to from four to eight evacuations daily; in many cases gaseous distension of the intestines evidenced by percussion. A gurgling sound is heard when the lower part of the abdomen, and particularly the right iliac region, is pressed with the hand; a state probably connected with a morbid condition of the ileo-cecal valve; and most common in the second and third stages. Generally, there is increased sensibility on pressure of the bowels, but often not unless strong pressure have been used: it may be confined to the right iliac region, to the whole hypogastric or epigastric regions, or it may extend over the whole abdomen.—During the first days there is, generally, an active circulation, with marked inflammatory symptoms; pulse full, and sometimes resisting and frequent; skin red. These symptoms diminish towards the end of this period; the pulse becoming more rapid, but softer, and the skin, which was covered with abundant acid perspiration, becomes dry and hot. The urine is scanty, high-coloured and fetid. Early epistaxis is common, and is a valuable diagnostic symptom; the bleeding is rarely copious, but often occurs several times.—The state of the lungs is important in diagnosis; often from the first there is a general sibilant rattle over both lungs—more evident inferiorly and posteriorly. The cough is rarely in proportion to the rattle; the expectoration is scanty, viscid and transparent. Obstruction of the nostrils by dried mucus or blood, and extreme meteorism often produce dyspnoea. Death rarely occurs during this period.

Second Period.—The eruption which is peculiar to typhoid fever usually appears between the seventh and ninth days. It consists of small rose-coloured spots, disappearing on pressure, from half a line to two lines in diameter, round and hardly elevated; scattered over the abdomen, sometimes on the breast; more rarely on the thighs, arms and forseams. Their number varies; in order to be characteristic, there should be at least fifteen or twenty. They do not all appear at the same time: their duration is uncertain; they ordinarily disappear in two or three days; in other cases they remain twelve or fifteen days; but it is probable these are successive eruptions.—Out of seventy cases occurring in 1830–1–2, where attention was paid to this point, there were only sixteen in which the eruption did not appear.—Of these fifty-four cases presenting the eruption, there were none in which it appeared before the sixth day, and in two cases it appeared as late as the thirty-sixth day of the disease. This agrees with the larger number of cases noticed by Louis. This eruption, so common in typhus, and so unfrequent in other acute diseases, is distinguished from petechiae and flea-bites, by its colour disappearing entirely under pressure, and returning as soon as it is removed. A similar eruption was observed by Hildebrand, in the typhus of camps; and in 1814, M. Chomel had an opportunity of verifying his observation in Paris. The extent of this eruption in some epidemics, gave rise to the term petechial fever. Sudamina are sometimes observed at a later period, but they are not so intimately connected with this disease as the eruption just described; they are small, semi-hemispherical, transparent vesicles; when viewed obliquely, they have a brilliant appearance, but when
looked at perpendicularly to their axis, they escape observation. We can understand from this, why they have been so seldom noticed or mentioned by authors. They are readily distinguished by the touch—appearing at first on the sides of the neck, and in the folds of the arm-pit and groin, and extending thence, in some cases, to the trunk and limbs. The symptom is of some importance, as it is much more frequent in this disease than in any other with which it may be confounded—as on the hips, sacrum, heel, and back of the hairy scalp. Slaughtering may be caused by pressure; but it sometimes occurs spontaneously and suddenly, as on the inner surface of the thigh, or upper part of the foot; and may follow the application of sinapism or a blister, or the irritation of urine and faeces. Debility and stupor may remain as in the first period, in the least serious cases; but in the most serious forms, the prostration of strength is complete, and the patient lies on his back an inert mass. The muscles of the throat partaking of the debility, deglutition becomes impossible; the liquids being rejected through the mouth or nose. Dysphagia may depend on inflammation about the epiglottis, or on ulceration of the mucous lining of the fauces and esophagus. Involuntary discharge of stool is regarded as another symptom of muscular debility: though we are by no means sure of the correctness of this view, especially when a retention of urine is alleged to be evidence of paralysis of the bladder. If the respiratory muscles share in the deficiency of muscular power, the patient is in danger of suffocation. It is not uncommon, at the same time, to find subutus tendinum, convulsive twitchings of the nose and upper lip, and carpology. General and permanent rigidity of the limbs is almost always a fatal symptom. In mild cases the headache ceases, and to constant wakefulness succeeds drowsiness, from which it is impossible to arouse the patient, except for a few moments. This is the Coma somnolentum of authors, and often lasts many days. When this stupor is so great that the patient cannot be roused by any excitement, he generally dies in a few days in the same state. Instead of stupor, some have delirium, coming on in the evening or at night, or constant; and either violent or of the tranquil and muttering kind.—Deafness, in most cases independent of stupor, is very frequent. The senses of sight and taste are commonly weakened. The pulse is small, weak, trembling, jerking, or intermittent; generally from 100 to 120; in others, from 80 to 90; in a few, it falls as low as 40 or 50 at the termination of this period. There is an increase of fever in the evening, sometimes hardly perceptible, at others violent, and more rarely preceded by rigors, and terminating by sweating, than in the first stage. The skin is of a more acid heat, drier and rougher; thirst less urgent; the nostrils having become impervious to air, the patient breathes wholly through his mouth, and the mucus covering it becomes dry, and changes from a brown to a brilliant black colour: this has been mistaken for effusion of blood. Diarrhoea continues; sometimes less frequent. Haemorrhage from the bowels, which, if abundant, speedily destroys the patient; this symptom is important in the diagnosis, as it is much more common than in other diseases. Meteorism continues or increases; abdominal pains are not complained of, except in the mildest cases; the breath and perspiration have an offensive smell, peculiar to fever. Of 42 fatal cases, 9 deaths took place during this stage.

Third Period.—The symptoms either improve and lead to convalescence or become aggravated, terminating in death. Thus, thirty-two patients, out of forty-two, who died of fever, died in this stage; and of ninety cases of recovery, convalescence commenced in one only during the first period; and, when the symptoms were severe, there were no instances of improvement before the end of the second. Improvement of expression, and attention to what is passing; are often the first signs of amendment; or the comatose state is exchanged for peaceful sleep, on waking from which the patient partly recovers his intelligence: he is able to move himself a little; the tongue and mouth become moist; meteorism diminishes; the evacuations are of a
more yellow colour, less fluid and foetid. Sometimes, at the moment when
the first amendment of the symptoms commences, solid and formed stools are
passed; sometimes black, dry, and in prodigious quantities; they had proba-
bly lain hidden in the cells of the colon. The patient becomes aware of
the passage of his evacuations; respiration more free; skin more supple or
moistened. At this period it is not unusual for abscesses to form in parts of
the body, which do not appear to have been irritated; and the patient or his
friends become alarmed at that which is a sign of beginning convalescence.
The face becomes thinner, and the features and expression more marked.—
Of 68 favorable cases, the convalescence commenced by one or more of the
previous symptoms on the following days:

In 1 patient, the 8th day after the attack.
1 " 9th.
4 patients, the 12th.
3 " from the 12th to the 14th days.
10 " from the 15th to the 16th.
15 " from the 17th to the 20th.
14 " from the 21st to the 25th.
11 " from the 26th to the 30th.
8 " from the 31st to the 40th.

It will be seen by this table, although the days on which the improvement
commences are very variable, yet that, in fifty cases out of sixty-eight—that
is, nearly three out of four, the improvement commenced from the fifteenth to
the thirtieth day.

In fatal cases, the stupor augments, expression more changed; the mouth
is drier, or, if moistened, it is only by the secretion of grey, viscid mucus,
mixed with blood, and foetid. Respiration more difficult, stertorous; some-
times, towards the last days, crepitation is heard posteriorly and inferiorly,
which is replaced by complete absence of respiration. Pulse more feeble;
heat diminishes; skin dry, covered with cold, glutinous sweat; emaciation
general and rapid; eyes hollow; features drawn down with a fixed expres-
sion, (facies hippocratica.) If the patient can speak, it is with difficulty and
with a trembling voice; the answers are unintelligible, even if the words are
understood. The exhaustion of strength is complete, and the comatose de-
bility is speedily followed by death. In some few cases, either at this period
or during convalescence, the patient is suddenly seized, if his sensibility is
sufficiently excitable, with extremely acute pains in the abdomen, sensation
of sinking, alteration of expression, nausea and vomiting; and the symptoms
of typhoid fever give way to those of partial or general peritonitis. The
pulse is small and thread-like, the abdominal pains are excessive. This sud-
den attack of peritonitis, depending on no apparent external cause, is owing
to perforation of the coats of the intestines and effusion of feces into the pe-
ritoneal cavity. It is almost inevitably fatal. Two out of forty-two fatal
cases died from this cause. Erysipelas of the face is a very fatal complica-
tion: it was observed in four cases out of 130, and all four died. The con-
valescence from fever is not rapid; in some cases it is extremely prolonged.
Satisfying the appetite, which is often voracious, frequently leads to very se-
rious consequences. Edema of the lower extremities sometimes follows
fever; so does mental derangement in some few cases, but it generally dis-
appears when the patient resumes his previous habits of life.

M. Chomel’s testimony is adverse to the doctrine of crises and critical days.
Of ninety-four cases, there were two in which copious perspiration was fol-
lowed by benefit; and two others where an abundant discharge of fecal
matter coincided with an amelioration of the symptoms; in the remaining
ninety, nothing similar was observed, so that these four cases can only be
regarded as rare exceptions. The only phenomena which really appeared
to precede improvement were abscesses, in six cases out of eighty. The
list given of the days in which improvement took place, shows that it hap-
pened many times in each day between the 15th and 30th.
Varieties of Typhoid Fever.—The sketch of fever which has been given embraces all the symptoms, but in no one case do they all meet; some symptoms excluding others, or being constantly united. The concurrence of particular symptoms constitutes varieties of fever, to which distinct names have been given by authors, as if they were distinct affections.

1. Inflammatory Typhoid Fever. This is frequent, particularly in winter; those of a sanguine temperament, and from twenty to thirty years old, and subject to hemorrhages, are liable to it. When well marked, the peculiar symptoms occur early; such as fulness and frequency of the pulse, hot skin, dryness of the throat, thirst, loss of appetite, oppression, and other general symptoms common to inflammatory affections; but, besides these, there are constant headache, muscular debility, disposition to hemorrhages, dry tongue, diarrhoea, typhoid and miliary eruptions. The form changes generally to the adynamic and ataxic about the seventh or eighth day, sometimes earlier. In two cases only out of forty-two fatal ones did the inflammatory form continue throughout the disease, and in one of these cases death was produced by perforation of the bowels. During five years, during which these cases were collected, M. Chomel saw no other instances of inflammatory fever which were fatal, and he has never met with inflammatory fever which was not a variety of the typhoid affection.

2. Bilious Typhoid Fever. Most frequent in summer and autumn. In two cases out of forty-two fatal ones, there were bilious symptoms at first, giving way to more serious ones. Five others were cured where these symptoms continued throughout. The symptoms are—yellow skin, especially around the lips and alae nasi; frequent nausea, and vomiting of bile; bilious stools; bitterness and dryness of the mouth; yellow or greenish coating to the tongue; tinnitus aurium; deprivation of taste, smell and touch.—The duration of these symptoms is seldom beyond the seventh to the fifteenth day.

3. Mucous Typhoid Fever. This, like the bilious, seems to depend much on localities: it is seldom well marked in Paris. The symptoms are—great debility; pale or swollen face; muscles soft; mouth pasty; breath, saliva, perspiration, and urine, of an acid odour; stools mucous or glairy: after a short period it is replaced by the adynamic or the ataxic form. Two out of forty-two fatal cases had these symptoms.

4. Ataxic Typhoid Fever. One of the best marked, most frequent, and most generally fatal forms. Ten out of forty-two were ataxic: four of these were unmixed throughout, and death ensued on the eighth, ninth, and twelfth days; two were preceded by the inflammatory, and two by the adynamic symptoms. This variety is distinguished by a remarkable disturbance of the functions of relation; as delirium, cries, threats, efforts to strike or escape; sometimes by mild delirium, heaviness, alteration or perversion of the senses, twitching of the tendons, convulsions, rigidity, &c. In other cases there is a remarkable discordance between the symptoms: thus, whilst the pulse is rapid, the skin is not hot, or one part is cold whilst the rest is very warm; or, whilst the face expresses a disease almost inevitably mortal, the pulse is hardly affected. Frequently the delirium is not in proportion to the other symptoms, either less or greater. Sometimes a sudden improvement leads the practitioner to doubt his diagnosis: the benefit is, however, temporary only. In some cases the patient is perfectly restored to his senses before death. Ataxic symptoms do not belong exclusively to fever, but may co-
exist with visceral inflammation, puerperal, eruptive and other acute diseases.

5. Slow Nervous Typhoid Fever. The symptoms are—a general indifference, great lassitude, heaviness, dejection; slight headach; pulse frequent and weak; constant wakefulness; no thirst, although the mouth is dry; if there is delirium, it is not violent, and consists of a confusion between thought and action; the patient mutters; in unfavorable cases the strength diminishes, and the stupor increases, with other adynamic symptoms; in favorable ones, the patient gradually throws off the drowsiness, or suddenly, as if awaking from sleep.

6. Adynamic Typhoid Fever. The most frequent form, adynamic being marked in twenty-six out of forty-two fatal cases: in ten of these, adynamic symptoms were present throughout, and in sixteen at the termination only. The predominant symptom is muscular debility, which may gradually simulate paralysis. These patients, with every appearance of strength, can neither lie down nor rise up in their beds without help, or even turn on one side. Towards the termination they lie immovable, and after many hours are found in precisely the same position in which they had been left. There is commonly great mental debility, commencing with early stupor. In bad cases, or at an advanced period, the patient does not answer questions which are put to him, and his unmoved features show that he has not understood them: after a loud question he may direct his eyes momentarily towards the speaker.

Headach diminishes as adynamia increases, and is replaced by wakefulness, or constant unquiet dreams. The mouth is covered with a thick layer of dry mucus; great meteorism; often no sensibility on pressure; stools generally festid and involuntary; sloughing of the parts pressed upon; urine and sweat festid; petechiae; skin at first warm and dry, afterwards cold; pulse feeble, trembling, at first rapid, latterly slow. This state sometimes lasts long.

Diagnosis. This is sometimes extremely difficult. It is prudent not to give a decided opinion during the first three or four days; for, when the symptoms are not very decidedly marked, they differ little from the precursory fever of many eruptive diseases, as small-pox, scarlatina, measles, of some catarrhal affections, or latent visceral inflammations. The long duration of the febrile condition is an important characteristic. Whenever febrile symptoms, which cannot be referred to any appreciable lesion, last eight or ten days, there are strong grounds to presume that the glands of Peyer are diseased, and when, on the other hand, a febrile disease, the nature of which is doubtful, it is not this affection. Between the sixth and twelfth days, symptoms which clear up the diagnosis generally appear, such as meteorism, typhoid eruption, stupor, epistaxis, hemorrhage from the bowels. At a later period still, there is less difficulty; for, even if the symptoms during the first and second periods have been absent, those which belong to the third remove all doubts: these are intestinal hemorrhages, sloughing, involuntary stools, and other marks of adynamia.

Prognosis. Few diseases are so fatal. Out of 147 cases in the clinical wards of the Hotel Dieu, between 1838 and 1832, forty-seven died, or one in three. Though a mortality of one in three is a very large proportion, any inferences unfavorable to the treatment of fever should for many reasons be made with caution and charity. The mode in which patients are distributed to the various hospitals in Paris, is brought forward as one excuse for such fatality. All the hospitals being under the direction of government, a central board of medical men is appointed to examine the patients who apply for relief, and to distribute them among the different hospitals. This board meets near the Hotel Dieu, so that the severest cases of fever are often sent there, as it is the nearest place. M. Chomel is also the professor of clinical medicine, and the most serious cases are sent to the clinical wards. These reasons would account for a greater apparent mortality than under other circum-
stances, if we did not find that during several years, whilst M. Chomel was physician to La Charité, the mortality in about the same number of cases was rather greater. M. Louis founded his "Recherches sur la Gastro-enteritë" on 138 cases of fever treated by M. Chomel, and out of these there were fifty deaths.* The average of one in three seems to be therefore independent of these local causes.

Fever is less dangerous in patients under eighteen years of age, and more dangerous after the age of forty. No appreciable difference is observed in regard to sex. Previous feebleness of the system does not appear to act unfavorably. Two out of four patients who attributed fever to moral causes of depression died. Of sixteen patients who admitted that they had taken stimulating drinks at the commencement of the attack, three only died. M. Chomel concludes that those cases are most dangerous where the attack was sudden. The tables given, however, indicate the opposite, the mortality being rather less than one in three where the attack was sudden, and slightly above one in two where there were premonitory symptoms. (P. 433).

There is probably some numerical error. If during fever there is a decided remission, followed by an aggravation of the symptoms, the termination is generally fatal. There is less danger when the form of the disease does not change: the ataxic is in such cases the most fatal. Complicated cases are very fatal: thus, of thirteen cases of inflammatory adynamia, eight died.—Many symptoms, when they become intense, are important in the prognosis. When delirium is early and violent, it is very unfavorable. Of forty-two fatal cases, twenty-two were violently delirious. When it consists in a dreaming state from which the patient can be roused, there is less danger. Of eighty patients who recovered, twelve had this mild delirium. Involuntary evacuations, when passed without consciousness, constitute a bad sign. Of thirty cases, in which this symptom was present, thirteen died. Constant and general twitching of the tendons is highly unfavorable. In five cases with general convulsions death was speedy. Coma is one of the most fatal symptoms; it should be distinguished from stupor, in which the patient's attention can be roused. Of seven patients with intestinal hemorrhage six died. M. Chomel does not think deafness unfavorable. The expression of the face is important: when emaciated and shrunk, (facies Hippocratie,) death is at hand; whilst improvement in intelligence of expression is often the first sign of amendment. If the pulse exceeds 120 or 130 it is bad, when 150 or 160 death is near. When it becomes slow after having been rapid, without symptoms of improvement, it is a fatal symptom, unless proper means to relieve the patient are not employed. Perforation of the intestines, and erysipelas of the face, are generally fatal complications. The danger of inflammation of the lungs is in proportion to its extent and to the general condition of the patient. When it occupies a considerable portion, or the whole of one lobe, and is not arrested, it is fatal, even before it passes into the second and third stage. Circumscribed pneumonia is often discovered in those who have extensive suppurations on the sacrum, and is dangerous. As pneumonia is often latent, considerable attention should be paid to the lungs. In three patients inflammation of the larynx and epiglottis took place, and was fatal. The injurious effects of sloughs on the sacrum, heels, &c., have been exaggerated. In seven cases, only three died, and in those which recovered the extent of the ulcers was truly alarming. Abscess in the external parts was observed in six, all of which recovered. They were not found in parts subjected to pressure.

TREATMENT.—M. Chomel employs the rational mode of treatment, in which the disease is treated according to the symptoms which may be present, and not according to any uniform plan. By this mode, none of the

---

specific modes of cure is excluded, though none is exclusively adopted. The antiphlogistic, the antiseptic, the tonic plans are not individually adhered to in every case, but are applied according to the form which the fever may assume. This is called rational treatment, as it supposes that the practitioner reasons on every case; it is also called symptomatic, from the attention which is necessarily paid to symptoms.

In the simple uncomplicated forms, M. Chomel prescribes refreshing drinks, such as lemonade, orangeade, solution of syrup of currants, pure water taken at short intervals, emollient fomentations and poultices to the abdomen, if it is painful; washing the body with vinegar and water, or simple baths, if there is much heat; mucilaginous lacements repeated many times daily; cold compresses to the forehead, if there is much headache, and warm or mustard poultices, if there is any tendency to drowsiness or forgetfulness. He also commences by taking some blood from the arm, as he agrees with M. Louis that this has a favorable influence on the duration of the disease. If the headache is intense, or if there is much abdominal pain, leeches may be applied behind the ears or to the anus. If the stools are scanty, mild laxatives, such as whey with tamarinds, neutral salts, &c. If there is diarrrhea, it should be restrained by mucilaginous drinks, gum or rice water, small laments of starch. Free air and absolute cleanliness are indispensable: great care should be taken that the urine and faces passed involuntarily should be immediately removed. When amendment commences, the emollient drinks may be exchanged for aromatics and gentle bitters: diet improved, such as vegetable jellies, weak broth, wine and water, &c. When the symptoms are more urgent, this expectant treatment is replaced by a more vigorous one.

Treatment of Inflammatory Typhoid Fever. This requires the antiphlogistic treatment according to the age and strength, but by no means with the same vigor as in simple inflammations; for it must be remembered that adynamic symptoms frequently follow inflammatory; there is therefore a necessity of husbandoing the powers of the patient. Another reason for the same caution is, that inflammation frequently springs up in the most debilitated subjects. Therefore, after taking blood once or twice, generally and locally by leeches, these means must be laid aside, and complete abstinence, with the remedies just mentioned, trusted to. The only cases where general bleeding is indicated in the second and third periods, would be when inflammation attacks patients who are not greatly debilitated. Great caution is required in all such cases.

Treatment of Bilious Typhoid Fever. The bitter taste in the mouth, great thirst, &c., cause the patient to request cooling drinks, ripe fruits, &c. which should be allowed. M. C. has not found emetics and purgatives so useful, nor bleeding so dangerous, as the physicians of the last century state. Emetics may be used at the commencement of a sudden attack, if the stomach appears to be loaded, but cooling drinks and fruit generally relieve the bad taste in the mouth.

Mucous Typhoid Fever. This is treated like the simple, except that acid drinks are given instead of emollients, and slightly bitter and aromatic infusions of indigenous plants, such as are made no use of in this country except by the poor, and therefore not at all equivalent to our pharmaceutical bitters and aromatics.

Treatment of Ataxic Typhoid Fever. The treatment of this variety is very difficult: the antiphlogistic, tonic, and antispasmodic plans have all had their exclusive supporters. The treatment however must vary. If inflammatory symptoms are present, the antiphlogistic treatment, and if the adynamic, tonics must be recommended. When there is no precise indication, the expectant treatment is to be followed.

Treatment of Adynamic Typhoid Fever. When there is stupor, unusual prostration of strength, weakness of the pulse, faintness in the sitting posture.
and involuntary passing of stools and urine; we must use bitters and aromatics, such as bark, chamomile, and sage in draughts, lavements, baths, and external applications; with wine, camphor, and ether: if the symptoms increase, the doses must be larger, and the wines of Spain given instead of those of France. Extract of bark, by the mouth and in lavements, in doses of one to two ounces a day, is given by M. Chomel in preference to quinine, if the stomach will bear it, as he doubts whether the sulphate of quinine contains all the tonic powers of bark equally with its febrifuge and antiperiodic principles. In this state tonics and excitants, instead of aggravating the lesions of the intestines, exercise a favorable effect upon them. The intestinal ulcers are analogous to cutaneous ulcers in similar subjects, which are improved by stimulating applications. In three instances where the patients died during the tonic treatment, the ulcers in the intestines were evidently cicatrizing. The tonic treatment was followed in nine patients, all of whom when it was commenced were in an alarming state of prostration, and six of these recovered. It is important that tonics should be given before the strength is too much exhausted, and yet not during reaction. The exact time must be determined at the bedside, as no exact rules can be laid down. If delirium or other signs of cerebral congestion exist, wine should not be given, as it almost inevitably aggravates the symptoms. M. Chomel commonly gives wine in spoonfuls, at first once or many times daily, increasing the quantity as debility increases. The lighter wines he gives with other drinks, in the proportion of a fourth, a third, or half; the stronger wines pure. In some cases the benefit is immediate: the pulse rises, the heat of the skin increases, and the expression improves. Ether is particularly useful when it is necessary to raise the powers rapidly, but its action is transient; it should be given with bark. Camphor is only employed by M. C. in lavements with bark, when debility is great. Bark in infusion, decoction, or still better only macerated in water, and sweetened with syrup of lemon, is one of the best drinks. Also infusions of serpentaria, cascarilla and sage.—The tonic treatment is rarely necessary in the first stage, and should never be tried then except with great reserve. In the second and third stages we may employ it with more confidence and energy. Several excellent cases are detailed in which success followed this treatment in apparently hopeless cases. M. Chomel mentions the application of revulsives and of warm and cold baths, but states nothing decidedly as to his own opinion of their efficacy.

Treatment of Particular Symptoms and Complications. Haemorrhages are rarely so profuse as to require special treatment. Epistaxis may render plugging the nostrils necessary, and if the discharge of blood from the bowels is great, cold or iced water in draughts, lavements, and external applications, extract of rhanty, &c. should be tried. Great care should be taken to prevent the formation of sloughs: when the fever has lasted any time the parts pressed on should be examined, and if there is that redness over the sacrum which precedes sloughing, the patient should be so supported as to lie on the side or even on the belly. When the eschar has formed, it should be covered with diachylon plaster; when it has fallen, the wound should be dressed as an ordinary ulcer. M. C. has not tried Dr. Arnott’s water bed. The treatment of local inflammations attacking a debilitated subject is very difficult. Local bleeding, particularly cupping, must be cautiously employed if the strength will permit. But generally the adynamic condition forbids it, and the tonic treatment must be pursued, whilst the local disease is combated with epispastics, as blisters and rubefacient plasters. In erysipelas of the face, the blood should be directed towards the feet by sinapisms, or very hot flannels covered with oiled silk. All the cases of perforation of the intestines which have fallen under M. Chomel’s immediate observation have been fatal. Perfect rest and abstinence were the treatment adopted, but if other cases should occur he proposes to try the plan suggested by Dr. Graves of
Dublin, and put into execution by himself and Dr. Stokes, of giving large and repeated doses of opium, so as to preserve the intestines in a complete state of rest, in order to prevent the further escape of faecal matter into the peritoneum, and to allow nature to close the opening by adhesive inflammation.—Opium is admirably calculated to fulfil this intention, by putting a stop to or weakening the peristaltic action of the bowels, and by soothing the excessive pain. These accomplished physicians have had some cases to justify the utility of the practice, and although it has not often succeeded, yet it has never wholly failed to assist nature under this distressing accident. We would refer those who desire complete information on this important subject to the original paper of M. Louis on perforation of the intestines in his “Mémoires ou Recherches Anatomico-pathologiques,” p. 136, et seq.; to the 5th vol. of the Dublin Hospital Reports; or to an able article, embracing both pathology and treatment, by Dr. Stokes, in the Cyclopedia of Practical Medicine, (art. Peritonitis.) The state of the intestinal tube will explain the frequency of tedious convalescence, and the accidents to which those are subject who are recovering from this disease. When the heat of the body diminishes, even although the frequency of the pulse continues, some liquid food may be given, such as veal and chicken broth, “le lait de poule,” milk and water, &c. augmented gradually until solid food can be digested. If the appetite does not return, and the patients are very weak, bitters should be given. Country air is very favorable to convalescence.

Belladonna.

Being assured of the fact, that the medical virtues of this important article are too little known, or estimated by the profession, we give the following extracts from foreign journals, contained in the third number of the British and Foreign Medical Review.

On the use of Belladonna as a topical application in retention of urine, spasmotic contractions of the uterus, and in strangulated hernia.—The well-known relaxant effects of belladonna on the iris, &c. has naturally led to its use in cases where spasm was known or assumed to exist in other parts.—M. Guerin, of Bourdeaux, was the first, we believe, who employed it in spasmotic strictures of the urethra, in the form of ointment spread on a bougie; and he states that he found the same remedy, applied in the same manner, effectual in the case of strangulated hernia. Since then, belladonna has been frequently used topically in similar and analogous cases; and we shall here extract the heads of a few of the more recent which have met our eye in some of the foreign journals.

I. Efficacy of Extract of Belladonna in Retention of Urine: By M. Gerard, late Chief Surgeon of the Hospital at Avignon.

Case 1. A lady, aged 36, was delivered of her first child, after a long and severe labour, at 1 A.M. on the 16th November, 1834. Nine hours thereafter it was discovered that the urinary bladder was immensely distended and painful, no water having been passed since the commencement of the labor, and there being still an incapacity to do so. No attempt seems to have been,
then made to introduce the catheter; the surgeon contenting himself with ordering "vegetable lemonade, and an emollient poultice to the hypogastrum." At 9 P. M. no urine having been passed, (now three days,) matters were of course worse, and then the surgeon seems for the first time to have thought of the catheter, but he could not succeed in its introduction, owing to what he terms "a manifest coarctation of the urethra." Being deterred by the patient's debility from the use of general and local bleedings or the warm bath, M. Gerard prescribed an ointment composed of two drachms of Extract Bellad. to one ounce of lard, and ordered it to be rubbed on the hypogastrum and labia. The first friction was made at midnight, the next at 3 A. M.; and shortly after this last the patient began to make water in small quantities with much pain. The frictions were continued through the day, and the urine at length flowed plentifully.

Case 2. A man, aged 49, was attacked with retention of urine, accompanied with fever, for which he was copiously bled and leched on two successive days, without relief. On the third day, frictions with the belladonna ointment were used on the hypogastrum and perineum. After the third friction there was a slight discharge of urine; and on the following day, the frictions being continued, the patient was completely relieved.

Case 3. A man, aged 24, suffered very acute pains in the region of the bladder, attended with retention of urine for three days, the consequence of a severe blow. After the failure of general and local bleedings, and the warm bath continued for four hours, the belladonna ointment was had recourse to, and the urine flowed after the third application.

Case 4. A man, affected with stricture of the urethra for six years, called in M. Girard in consequence of a suppression of urine, which had lasted four days, notwithstanding the employment of general and local bleeding, bathing, anodynes, &c. The belladonna ointment was ordered: after the first friction a slight flow of urine took place, and the relief was complete after the continuance of the friction for thirty-six hours.—Journal des Connaissances Med.-Chir., Mai, 1835.

II. Employment of Belladonna in Spasmodic Contractions of the Uterus, Urethra, and Inguinal Ring. By M. Carre, Chief Surgeon of the Military Hospital of Briançon.

Case 1. A lady was in labour of her third child; the waters had broken, and, as no progress was gained, the midwife attempted to dilate the os uteri by her fingers. This proceeding increased the irritation and contraction, and produced general convulsions. M. Carré, being called in, bled the patient and used the warm bath, but to no purpose. He then ordered the os tempore to be rubbed with belladonna ointment every half-hour; and, after the third friction, the uterus became sufficiently dilated to permit the operation of turning, and the child was delivered, and lived. The ointment was made by rubbing up eight grammes of Ext. Belladonna with sixty-four grammes of cerate, and of this from two to four grammes were used each time.

Case 2. A woman, aged twenty-one, was prematurely taken in labour at the eighth month. The waters had broken for some time, and, when M. C. was called, he found the os uteri so strongly contracted upon an arm of the fetus, that he could not introduce his hand. Having first had recourse to bleeding, &c. the same ointment was applied, and, after the fourth friction, the dilatation was sufficient to permit the operation of turning, and the extraction of a dead child.

Case 3. A man had suffered from retention of urine for twenty-four hours, without any relief from bleeding and baths. The catheter could not be introduced beyond two inches, on account of the spasmodic contraction of the urethra. As the patient had been able to make water freely previously to the attack, M. C. believing the case merely spasmodic, prescribed the bella-
Belladonna.

III. Two cases of Incarcerated Hernia cured by the use of Belladonna Ointment: By Pietro Porta, M. D. of San Zenone.

Case 1. A stout healthy man, æt. 50, upon lifting a heavy weight, was seized with a sudden pain, attended with tumour in the right iliac region.—A medical man having recognized a crural hernia, bled the patient, and prescribed warm fomentations. The next day Signor Porta was called in, when the intense pain, meteorism, hiccup, vomiting, and obstipation, unrelieved by a second bleeding and the taxis, determined him to resort to the use of the belladonna, in the form of dried leaves 5 j. toورد 3 vj. This however could not be procured for a whole day, during which delay all the symptoms became much aggravated. nevertheless a few frictions with the ointment over the tumour caused it to disappear, with all its attendant symptoms.

Case 2. This was supposed to be a case of omental inguinal hernia, and occurred in a child of five years old. The tumour was inelastic, doughy, and irregular, giving rise to no prominent symptoms of suffering, but still, after several days, remaining irreducible by the taxis and warm baths. The belladonna ointment, applied every two hours for three days, succeeded in effecting the reduction, after the failure of every other means.

[Although the majority of the foregoing cases are far from presenting positive evidence of the efficacy of belladonna as a relaxer of the spasm present or presumed to be present in them, since similar cases terminating in like manner, without the use of this remedy, must have occurred to most surgeons of experience—still they cannot be repudiated as unworthy the notice of the practitioner, according to the law of evidence commonly received in physic. To remove all doubt, a much greater number of successful cases must be adduced, or an equal number of similar cases must be treated with and without belladonna, and the majority of favorable results proved to be on the side of the treatment with this remedy. In respect of hernia, we must strongly protest against the adoption of any measures attended with loss of time and delay of the surgical operation, in a complaint of so urgent a nature as incarcerated hernia. When however, as sometimes occurs, through the strong opposition of the patient or his friends, an operation is impracticable, no mode of treatment which offers a chance of success should be neglected; and in such cases frictions with belladonna, harmless in themselves and soothing to the patient, are not only admissible, but are to be recommended, as supported by experience at least, if not by sound pathology.

Dr. Motard, of Turin, has found that a solution of belladonna, introduced
into the nose, dilates the pupil effectually: and he is in the habit of moistening a pinch of snuff with a solution, by which means the pupil next to the nostril in which it is introduced is dilated in a minute or two. The dilatation lasts about two days. This hint is worthy of trial in those cases of cataract where the patients are in the constant habit of using belladonna to improve in some degree their imperfect vision; as it is a more convenient process than the common one.—Giornale delle Scienze Medico-Chirurgiche, No. x. Aprile, 1835.

On the Physiology of Vomiting; and on the Causes of its Difference in Adults and Children: By Professor C. H. Schultz, M. D.

The great frequency of vomiting in infants at the breast, and the spontaneousness and facility with which this process takes place, are well known. It seems to occur without any previous nausea, as the infants, generally speaking, exhibit no signs of uneasiness. The case, as is well known, is very different with adults, in whom nausea and retching will, in certain cases, exist in a great degree for days, or even weeks, without any evacuation of the contents of the stomach. The facility of vomiting in general remains with children for some years after weaning, although this is effected with somewhat greater difficulty than during the period of nursing. The causes of this difference in the readiness to vomit at different ages have not, as far as I know, been yet closely investigated.

To enable us to prosecute this inquiry with advantage, it is necessary that we should have a perfect understanding of the causes of vomiting in general; and to this point I shall address myself in the first place.

The opinion first advanced by Boyle, that, in the act of vomiting, the stomach is passive—the evacuation of its contents being effected by the contemporaneous contraction of the abdominal muscles and diaphragm—has been adopted and powerfully advocated by physiologists of the greatest name; more especially of late years. Chirae confirmed the fact stated by Boyle, that no convulsive motions are felt in the stomach during vomiting in the case of dogs, when the hand is placed in contact with the organ through a wound made in the abdomen. Van Swieten, Senac, and others, adopted the opinion of Boyle on other grounds; and, in later times, Magendie has proved beyond question, that, in the case of dogs, not only are no convulsive motions of the stomach felt during vomiting, but none are seen when the stomach is laid bare; and, moreover, that when the abdominal muscles are removed, and the contractile power of the diaphragm destroyed, the act of vomiting in dogs, if not entirely prevented, is, at least, rendered extremely difficult. It accords with this view of the process that, in man, vomiting becomes easier in proportion as the stomach is distended, and is thus more exposed to compression between the above-named muscles.

The objection to this explanation, derived from the fact that vomiting takes place in birds and amphibia which have no diaphragm, as also in certain cases in the human subject in which an abnormal position of the stomach had removed it from the pressure of this muscle, is not valid, since in such cases the thoracic viscera, during inspiration, present sufficient resistance to allow the stomach to be compressed between them and the abdominal muscles.—It is indeed obvious, that the same muscular action takes place in the act of
vomiting as in labour, cough, and the evacuation of the bowels and bladder, &c.; and that the discharge of the contents of the stomach by repeated fits or impulses, corresponds exactly with the spasm-like contractions of the abdominal muscles and diaphragm.

It has not, however, escaped the opposers of Magendie’s theory, that if vomiting were effected exclusively by the abdominal muscles and diaphragm, it ought to be a purely voluntary act; whereas, it is known that only very few animals, such as frogs and birds of prey, can evacuate the contents of the stomach at pleasure. It results from this fact alone, that the before mentioned muscles are not exclusively those which are active during vomiting; and we are hence led back to the old doctrine of the anti-peristaltic motion of the digestive organs. Maignault and Beclard have attempted to prove that, although the stomach is not spasmodically contracted, still that the oesophagus is thus affected, by fits, during vomiting in the dog; and every one who has experienced vomiting in his own person must have felt that these reverse spasmodic efforts of the muscles of deglutition commence in the pharynx. These gentlemen were further of opinion that, in the act of vomiting, no anti-peristaltic movements take place in the stomach, but that this organ presents a state of equable tonic contraction, and that it is only by means of the fitful contractions and expansions of the oesophagus, aided by the action of the abdominal muscles, that the stomach is emptied of its contents.

While acknowledging our obligations to the French investigators, we must admit that there are many phenomena attending the act of vomiting which prove their theory to be at least insufficient. If the oesophagus and abdominal muscles are the only parts active during vomiting, how is the phenomena of faecal vomiting to be explained? I consider this morbid state sufficient proof in itself that an anti-peristaltic action both of the intestinal canal and stomach does exist, while, on the other hand, no one can deny that there may and do exist contractions of the abdominal muscles, diaphragm, and oesophagus, without any vomiting. This is evident in the case of the horse, rabbit, hare, guinea-pig, and several other herbivorous animals, which cannot be made to vomit even by the strongest emetics, although the strongest retching and contractions of the abdominal muscles take place, and although they possess the same organs as the dog, which vomits on the slightest occasion. It is the more important to investigate the cause of this difference in animals, as it will lead to the explanation of the much greater facility of vomiting in children than in adults.

The cause of these differences lies in the particular shape of the stomach in different animals, a circumstance, as far as I know, hitherto unnoticed by comparative anatomists; and the same cause operates in producing the difference in the facility of vomiting in the infant and the adult; since there exists the same analogous difference of form between the stomach of the child and the adult man, as between the stomach of animals which vomit with facility, such as the dog and cat (and we may say carnivorous animals in general), and the stomach of those which vomit not at all or with extreme difficulty, as the horse and rabbit, (and herbivorous animals generally).

Before proceeding further in the enquiry, I think it necessary to state that my experiments and observations lead me to decide positively in favor of the existence of antiperistaltic motions of the stomach during the act of vomiting. Boyle, Chirac, and the recent observers in France, hastily concluded that, because they could discover no convulsive movements of the stomach that therefore there were no antiperistaltic movements of any kind: they found the stomach contracted and motionless. I admit that there are no convulsive movements, but I cannot concede that in the dog, for instance, the stomach is at rest during the act of vomiting. On the contrary, I maintain that decided antiperistaltic movements are perceptible, but these are not stronger than the ordinary peristaltic motions of the same organ. They are, moreover, not very distinct in the middle portion and fundus of the stomach, but
only at the two extremities near the cardia and pylorus. The whole pyloric portion is strongly contracted when the cardiac portion expands; and, while this is going on, there is no perceptible motion in the fundus and larger curvature, and assuredly no convulsive one. But, it may be asked, what considerable effect can so slow an antiperistaltic motion have in vomiting? The answer is briefly this—that, by this antiperistaltic motion, (no doubt assisted by the abdominal muscles,) the direction is given to the food which is to be ejected by the act of vomiting, or which is to be forced from the intestines into the stomach in the case of fecal vomiting. If the abdominal muscles alone acted on the perfectly passive stomach, the food might, by this pressure, be driven into the intestine as well as into the oesophagus; if, then, the contents of the stomach are to be ejected in a particular direction, it is requisite that the cardiac and pyloric portions should possess a distinct active motion.

I now return to the various forms of the stomach occasioning the differences in vomiting; and here I may take for granted as understood what I have detailed in the work "De Alimentorum Concoctione," concerning the forms of the stomachs of carnivorous and herbivorous animals. It is demonstrable that a child's stomach is as different from that of an adult as a pole-cat's is from that of a rat; and, if the difference between the form of a child's stomach and that of an adult has not been sooner recognised, it is only because their very different functions and importance in the preservation of life had not previously been suspected; for this difference will not fail to strike every one as soon as his attention is directed to it. But, to make these differences still more conspicuous, I will introduce an outline of the form of a child's stomach, and that of an adult.

The stomach of a child is more of a conical form, drawn out lengthwise, and gradually narrowing towards the two extremities, inferiorly towards the pylorus, superiorly towards the cardia. The oesophagus is inserted into the fundus at the left extremity, and at a distance from the pylorus; the small curvature is stretched out lengthwise, the large curvature is less developed, and runs almost parallel with the small; in short, the stomach of a child resembles that of the carnivorous mammalia.

The form of the stomach of the adult is very different: it is more circular; the oesophagus is not inserted into the left extremity, as is the case with the child's, but into the middle between the left extremity and the pylorus. The pylorus itself is drawn back towards the cardia, and both brought very near to each other; on this account, the small curvature is very short, while the large curvature, on the contrary, is disproportionately extended, forming not only the entire lower circumference of the stomach, but also surrounding that part of the fundus situated between the cardia and the left extremity; so that the large curvature alone forms about four-fifths of the whole circumference of the stomach. It must, also be added, that the fundus does not pass into the pyloric portion gradually and gently, as is the case with the child's, but that the latter is separated from the former by a sort of neck or contraction, sometimes more, sometimes less, strongly marked. In consequence of this the left part of the stomach assumes an almost circular form, and the whole very much resembles the form of the stomach of the rat or rabbit, although in a less marked degree than in these animals.

To each of those different forms of the stomach, an entirely distinct motion, peristaltic as well as antiperistaltic, has been given. In the child's stomach, where the small curvature is extended almost parallel with the large one, the food is expelled with nearly equal power by the undulating motion of both curvatures, and forced towards the pylorus by the peristaltic and towards the cardia and oesophagus by the antiperistaltic. In consequence of this, vomiting in children is very easy, because the oesophagus is situated at one extremity of the stomach, towards which the food is forced, at the same time that the pylorus closes and the cardia opens. But the process is very different in the stomach of the adult: in this, the small curvature is so much
shortened, and the large one so much extended, that the food is not equally propelled from both sides, but the motion is almost confined to one side, and is effected principally by the large curvature, which embraces almost the entire circumference of the contents of the stomach; by this partial action, the contents of the stomach are moved rather in a rotary direction, which completely stops towards the contracted pyloric portion, turning round in the fundus from the left side to the right when urged by the peristaltic motion, and from the right to the left when by the antiperistaltic. In consequence of this, during the act of vomiting, the antiperistaltic motion does not direct the food towards the cardia and oesophagus, but merely communicates to it a motion contrary to that given by the peristaltic; and herein the reason is to be sought why, notwithstanding the pressure of the abdominal muscles and the diaphragm, the contents of the stomach are so difficult to be voided, and that, in many herbivorous animals, where the small curvature is still more shortened, the evacuation is impossible. The evacuation of the contents of the stomach of an adult can be effected only by a strenuous effort, produced by the strong pressure of the diaphragm and abdominal muscles, at the same time that the oesophagus opens and shuts alternately; the stomach itself would be incapable from its antiperistaltic motion alone to discharge its contents upwards. In this respect there exists a completely different state of things in the pyloric and cardiac portions of the stomach. The pyloric portion from the point where it is so much reduced in diameter, exhibits a more regular or intestine-like form of both curvatures, and the contents are on that account easily urged forwards into the duodenum; but, in the other direction, the contemporaneous motion of the two sides ceases beyond the contracted part, becoming, as already stated, rotary, in the cardiac portion.

These details satisfactorily explain the differences so often referred to between children and adults. The former can discharge the contents of their stomachs by the antiperistaltic motion alone, without any perceptible assistance of the abdominal muscles; and the least pressure from these will increase the discharge. Animals whose stomachs are cylindrical, and in which consequently, the ordinary relation between two curvatures entirely ceases, such as frogs or fishes, can, as it appears, with facility empty their stomachs by means of the antiperistaltic motion alone, without any cooperation of the abdominal muscles; and it is thus that they often throw up pieces of food merely on account of their inconvenient position in the stomach, and swallow them again in a more acceptable direction; even dogs after having swallowed a piece of bone frequently adopt a somewhat similar method. The human stomach in the earlier stages of its formation puts on the cylindrical form of the stomach of fishes and amphibious animals; in the embryo it appears only as a slight enlargement and elongation of the oesophagus in the abdominal cavity, with the cardia directed upwards and the pylorus downwards, as is the case with frogs. The stomach assumes its horizontal position only at a later period when the curvatures become developed.

There are naturally an endless number of transitions and intermediate stages of development, between the cylindrical, conical form of the stomach of the infant and that of the adult; and these numerous transitions will be accompanied by as many degrees of facility or difficulty in vomiting. What appears to me particularly interesting in a medical point of view is, that the round stomach of the adult is frequently seen in children of a diseased or merely of a disordered condition at a much earlier age than usual, and that such children also generally vomit with much more difficulty. I have had opportunities of making this observation in several post-mortem examinations of scrofulous children; and in one instance was able to describe before death the probable form of the stomach, from the extraordinary difficulty with which the child vomited. On the other hand, the fundus of the stomach of adults is not always found to extend, in a like degree, beyond the insertion of the oesophagus towards the left side. There are human stomachs with
the fundus so much developed, as to be with difficulty distinguished from those of herbivorous animals: and others, again, which approach nearer to the form of the dog's stomach from their imperfect development.

The question naturally here suggests itself—What is the cause, not only of these differences, but of the changes in general, to which the stomach is subject at different periods of life? To me it appears that the cause is principally to be sought in the nature and quantity of the food. The cylindrical form of the stomach in children continues only while they are fed on milk, consequently on purely animal food; as soon as they receive vegetable food in any quantity, the fundus begins to develop itself. On that account, even in the first year, a strong development of the fundus is found to have taken place in such children as have been weaned immediately after their birth and fed on soft pap made of flour, potatoes, or bread. The influence of the food on the form of the stomach is distinctly observable in older persons. The stomachs of such persons who live principally on potatoes and other vegetables are found to resemble most those of herbivorous animals; while the fundus in individuals who live more on rich animal food is less developed. I have shown in my paper, "De Alimentorum Conceitione," that the stomach of dogs and cats (animals purely carnivorous,) will assume the circular form after they have been fed for some time on messes of potatoes, meal, and bread; but that their stomach will retain its original oblong form if fed on animal food alone. On this account, the round form of the stomach observed in the domesticated carnivorous animals is never found in wild animals of the same class, such as, for example, the pole-cat.

Man, as an omnivorous animal, certainly possesses the type of the more rounded form of the stomach; but the extent of the development until it attains the form of the stomach of animals purely herbivorous, will, however, in a great measure, be determined by the degree of preponderance of vegetable over animal food; and the development may be increased till it become morbid. The reason why vegetable diet should develop the fundus to such a degree that the stomach assumes the circular form, (and the rotary motion be in consequence given to its contents,) is, I believe, the following: I have shown elsewhere, in speaking of animals, that vegetable food is of much more difficult digestion, and consequently is retained much longer in the stomach. The food requires to be moved about longer, and not immediately propelled into the intestine; hence the rotary motion, by which it is agitated in the stomach without being directly emptied into the pylorus. By this action the digested part of the vegetable food is gradually separated by layers on the surface of the mass, and is conducted into the pyloric division, in order to be passed into the intestine, while the undigested part continues in rotary motion in the centre of the stomach. In carnivorous animals the process is very different: the animal food, being soon digested, is directly propelled towards the pylorus by the united action of both curvatures, and does not require to undergo a prolonged rotary motion; whereas, if vegetable food be received in a stomach so constituted, it will necessarily pass into the intestine in a raw or only partially digested state. On the other hand, herbivorous animals cannot perfectly digest animal food unless the form of the stomach undergo a change, as, by long detention in the organ, the food, instead of being digested, becomes putrid. The attempts therefore, which have been made in some places to feed sheep, horses, and oxen, on fish or other animal matter, must ever fail. The enquiry whether the stomach of these animals might not be transformed by gradually accustomed them to animal food, is foreign to the present subject. But, even with dogs and cats, experience shews that purely vegetable food does not succeed, as it almost invariably renders them subject to the mangle, (raude.)—But, to return to the cause of vomiting in children and adults.

Although the form of the stomach plays the principal part in vomiting, there seems to be another agent strongly co-operating with it, namely, the sensi-
bility of the organ itself, particularly in respect of the nausea or sickness which produces the motions of the stomach in the act of vomiting. This is the reason why I do not assert that lunatics, who generally vomit with so much difficulty, experience this difficulty only because they have a herbivorous stomach; in such a case, we must consider the state of the brain as well as the sensibility of the stomach; the torpidity of the brain being often such as not to admit the perception of nausea: these persons, perhaps, frequently do not vomit because they do not experience nausea.

We have been endeavouring to show that the food is detained longer in the stomach of the herbivorous form, because it is kept longer in action there, without passing directly into the intestine, and that this form is adapted only to the more indigestible quality of vegetable food. If a stomach so constituted be suddenly filled with animal food, this food will be detained longer by the rotary motion than is necessary for the purpose of digestion, and the consequence will be, that the whole process will be disturbed, and the food, instead of being digested, will undergo a chemical decomposition. From this we may also conclude, that nothing will disorder the stomach sooner than sudden repletion with animal food after long use of a diet in which the vegetable preponderated. Excess of vegetable food is much less injurious in such cases, as indigested vegetable matter is, in the intestine, not so easily decomposed, and excites peristaltic motion more than animal food. It follows that we ought carefully to avoid sudden change of diet from vegetable to animal. To this may be ascribed the greatest part of the gastric diseases prevalent in the summer, and still more in autumn, when the stomach, after having been accustomed to vegetable diet, is suddenly charged with large quantities of animal food.

The only remaining question is, whether we can produce excessive retching by larger doses of emetics, as a substitute for the want of peristaltic expulsive motion in persons having stomachs of the herbivorous form? On closer observation, however, we shall be induced to believe that large doses of emetics in such cases would fail in producing the intended effect. There are persons in whom very powerful emetics would sooner produce death than vomiting, as is the case with rabbits. In such cases, I think, the greatest assistance will be afforded by such means as will facilitate vomiting, by increasing the pressure of the abdominal muscles on the stomach, such as filling it with fluids particularly gelatinous fluids, or any thing calculated to increase the elastic tension of the parts: perhaps, after all, the best means of facilitating vomiting in stomachs of such a conformation will be starch-flower or arrow-root boiled to a paste, as formerly recommended by Hufeland.—Hufeland and Osann’s Journal. März, 1835.
PART III.—MONTHLY PERISCOPE.

Stillingia Sylvatica in Scrofula and Tinea.—We have just received a familiar letter from our highly valued and scientific friend, Dr. Wm. M. Lee, of Indiantown, S. C., from which we take the liberty of extracting the very important observations it contains on the medicinal properties of the Stillingia Sylvatica. Every practitioner will feel deep interest in facts which tend to enhance his usefulness, in attempts to cure these diseases which have so often resisted every effort of the physician.

“You request some information in relation to the medicinal properties of Stillingia Sylvatica. I have not kept any register of the cases in which I have administered it; but two occur to my mind at this time interesting: One of Scrofula, the other of Tinea Capitis. The former was a lady who had been under the care of several physicians, with little or no benefit. I endeavored to ascertain from herself and husband, what kind of medicines had been given her, but received no clear and satisfactory information; although I am inclined to think she had used either the nitric or sulphuric acid. When I first saw her, her face was disfigured by plasters of citrine ointment covering unsightly ulcers, supposed by her friends to be cancerous in their nature, and considered incurable; as some healed, others would succeed them. The first glance satisfied me that the disease was scrofulous. To restore the general health, I prescribed 4 grs. Pilul. Hydr. every alternate night, and during the day three wine-glassfuls of the decoction of Stillingia, prepared by simmering a double handful of the recent root in four pints of water down to two. The effect was almost magical. In a very short time, perhaps a fortnight, the ulcers began to dry up, and were not, as formerly, succeeded by a new crop. In the course of two months they were all healed, the general health greatly improved; and except from the cicatrices, no one would suspect that she had ever been diseased.

The case of Tinea was in a negro infant, about six months old, belonging to a gentleman with whom I then boarded. I never saw a more aggravated case. The scalp was almost one mass of disease. An infusion was made by pouring two pints of boiling water upon 1 oz. of the sliced roots of Stillingia. The dose was a tablespoonful. It was tried by the consent of her owner, as an experiment, and in three or four weeks, my success was complete. No external means were used except daily ablution.

As a therapeutical agent, I consider the Stillingia infinitely superior to the expensive and often inert Sarsaparilla.”
MEDICAL SOCIETY OF AUGUSTA.

Wednesday, Jan. 4th, 1837.

After the annual election of officers, which was held this evening, the essayist for the evening being absent, the discussion of the regular subject was postponed until the next meeting.

On the call of the meeting for the relation of facts of practical importance, Dr. Antony related a case of accelerated menstruation. Until the last two years the habit of this patient had been regular—menstruating at four weeks, and for five days at each period, and at the usual rate. But since that time, the period had gradually accelerated to three weeks, shortened in duration to three days, and attended with more than usual pain. She was eighteen years of age, and had been married about a year and a half. He first saw her four days previous to her three weeks' period. Finding the cause of her irregularity to be a gradually increasing prolapse of the womb, this organ was removed from the fossa scaphoides, into which it had descended, and placed properly in the upper part of the pelvis, and in the axis of the superior strait; and the patient, placed on her side with her hips elevated by a thick pillow. On the second day after, being two days before the expected menstrual discharge, (according to the three weeks' period,) a bilboquet pessary, made of soft elastic materials, was so applied as to occupy the place in the vagina before the lower part of the rectum, from which the uterus had been removed, and sustain the organ in its proper site. The patient was allowed to leave her bed at pleasure.

No other treatment was was prescribed, nor any particular regimen; but the patient directed to wear the pessary until after the close of the approaching menstrual, which was her November period. The result was most happy. The menstrual flux was retarded to the precise time of four weeks from the first day of the last period, and continued without more uneasiness than attends ordinary healthy menstruation for the term of five days, at the ordinary rate of flowing in health—thus securing to her for this period at least, a perfect restoration to regularity in every respect, which had not been the case for the last two years.

The next day after the decline of the menstrual flux, the pessary was removed. So complete had been the correction of every irregularity at this period, that it was resolved to rest the case for the next period, on daily replacement, with the use of vaginal lotions. These were used every day, after a few hours refreshment from bed in the morning, after which recumbence for eighteen hours, with the hips on a pillow was enjoined. On the twenty-seventh day from the beginning of the November period, the menses made their appearance and continued four days
only—being a deviation from health, of acceleration one day, and duration one fifth less, but attended with no peculiar distress. She was at this time on the same treatment as the last month, and it was intended to reapply the pessary immediately preceding the next period.

He gave this case as one fairly illustrating the efficacy of a plan calculated to ensure the positive restoration of the uterus in its proper place, over any other plan without this. The patient was of full and round habit, in the vigour of youth, and carrying in the face the aspect of high health. Under all the circumstances, therefore, styptics or astringents, as well as tonics, were counter-indicated.

Dr. Dugas said, as menstruation had been referred to, he would give the Society the results of a case, wherein the menses had not appeared for six months.

He had sinapisms prepared of equal parts of mustard and flour, made into a paste with water, and applied them over one half of each breast simultaneously, alternating the places of application on each mamma, and repeating them frequently for three days; at the end of which the menses made their appearance.

Dr. A. said he was happy in hearing of the favorable result of a practice so suited to the convenience of females, and from which he had expected so much, and found so little success. On the first announcement of this remedy, he had subjected some six or eight cases to the use of sinapisms, in the same manner, commencing about two days in anticipation of the monthly period, and continuing the repetition as often as the tenderness of the surface would bear, for three or four days, with no better results than partial success in one case only. He hoped, however, that as our remedial resources were very limited in such cases, the favorable result obtained by Dr. Dugas, would afford encouragement to the members to give further trial to the remedy, and report the result to the society.

Dr. D. said he had succeeded fully with this remedy in but one case; but that in all the cases in which he had used it, menstrual pains and other symptoms of approaching discharge had been produced, without the actual flux, thus manifesting the power of the remedy on the uterus through the mammae; but that at subsequent periods in the same cases, he had not found the same results.

Dr. A. confirmed by his own experience the observation of Dr. D., relative to the evidences of uterine excitement thus produced, notwithstanding the finally unfavorable issues which had followed his use of this remedy.

Dr. P. F. Eve asked if either Dr. D. or Dr. A. had, on failing with this application of sinapisms, ever applied them to the upper and inner part of the thighs?
Dr. Dugas said he had constantly done so, and with considerable success.

Dr. Antony said he had often used sinapisms in this latter way, before and since their application to the mammae had been recommended, but with such limited success in proportion to their severity and disagreeableness to the patient, that he had measurably abandoned the practice.

Dr. E. A. Eve said he had used sinapisms in both ways, but always in connexion with other means, and with a reasonable proportion of good results in his cases; but could not say what part of such results was fairly attributable to the use of sinapisms, as he had in no instance depended on them alone.

Dr. Jos. A. Eve observed that cases of this kind were so various in their nature that this remedy could not be expected to succeed in all cases, but whilst it would prove serviceable in some, it would be productive of much mischief in others; as exciting measures only are properly adapted to those cases in which there is a want of excitement in the uterus; and contrary means, as revellents to the sacrum, &c. in the opposite state of the organ. He considered that before truth can be arrived at in this practice, we must know more of physiology, relative to the association or nature of the connexion of action which exists between the mammae and the uterus—whether the sympathy, (if he might so speak,) between them were direct or inverse—whether excitants applied to the mammae acted on the principle of revulsion, in lessening the excessive excitement of the uterus, or as a direct stimulus to the latter by its association with the former.

Dr. Dugas was not prepared to say whether sinapisms to the mammae, act as revulsives, or as direct exciters of the uterus, but was much inclined to the latter opinion. Pregnancy, even in the first weeks, he considered, irritates the mammae—so also on the approach of the menstrual period, the mammae become irritated. He considered that in these and such cases, the uterine irritation is directly extended to the mammae; therefore he was not disposed to consider the modus operandi to be by revulsion.

Dr. J. A. Eve repeated that until we can determine the mode of sympathy between the two parts, it is impracticable to determine the modus operandi. If direct, then the sinapisms to the mammae can only prove useful in cases where more action is required in the uterus, and injurious, if operative at all, in cases of too high excitement in this organ, and vice versa if the sympathy be inverse. He considered that the only way to determine the relation of these parts is, by physiological observation. In pregnancy the mammae do increase, but the great excitement in the womb would seem, to keep back the excitement in the mammae. But after pregnancy ends, the excitement of the uterus is daily reduced, and the breasts become developed from excitement and fluxion, and lactation commences. He gave as an evidence
favorable to the opinion that the sympathy was reverse, the fact that some women keep from conceiving as long as they please, by keeping up lactation, and that the former (conception) is retarded by the latter more or less in all women. If a woman miscarry, or if, in consequence of the death of her child or any other cause, except bad health, she do not lactate, she generally conceives in a short time after parturition; whereas, when a woman nurses her child, it is not usual for her to conceive in less than twelve or eighteen months. Many more arguments, he thought might, be derived from an observation of physiological and pathological phenomena, in favor of the existence of an antagonistic relation or inverse sympathy between the uterus and mammae.

Dr. E. A. Eve considered that lactation did not disprove uterine excitement, but tended to relieve it when it existed.

Dr. Antony advanced the opinion that the physiology of the connexion of the uterus and mammae was very peculiar, and not to be explained on the common principles of excitement alone. He was not sure if there was not a peculiarity in the vascular connexion of these parts, (alluding to the anastomoses of the mammary with the hypogastric arteries,) sufficient to account for the peculiar phenomena, which are presented by these organs, in the different states in which they are synchronously or successively found relative to each other. He instanced the accession of lactation after delivery, when the contractions which the uterus undergoes, necessarily, close up the great vascular sinuses which constitute, at least, much of its increased bulk in pregnancy; and by which contractions the lochial discharge is constantly moderated for several days, and until it ceases almost entirely, whereon the mammae swell and become painfully irritated, until free secretion takes place. Here, he asked, might it not be reasonably supposed that the prompt suppression of the free and copious transmission of the blood through the uterus, as well as of the red lochia, would tend to the increased fulness of all that part of the sanguiferous system most immediately connected with the uterus, and therefore, of the hypogastrics which anastomose with the mammary; and hence these organs enlarge and become irritated from unusual repletion? Again.

In pregnancy, the uterus and its appendages labor under a greater or less (but considerable) irritation, which causes an increased fluxion to the part. And here he felt bound to depart from some opinions which had been advanced, and to conclude their stead, that the mammae do not ordinarily evince irritation in the very first weeks of pregnancy; but that, if altered at all, they actually become more soft and flabby than usual, and that this evidence of withdrawal of excitement and repletion is manifested not only in the mammae, but also in every feature of the face, making what are called the "shrinking of countenance," "the
loss of looks,” “the sharpening of features,” &c. &c., which
make up the prominent early symptoms of pregnancy. And
that these phenomena are owing to the focus of irritation exis-
ting in the uterus and its appendages, and which irritation, tho’ lo-
cal, as to the general system, is still sufficiently extensive, as by a well
established law of excitement, to cause so considerable a fluxion to
the part, as to produce those external phenomena, so much re-
ssembling a chill, and in which, the heart and large arteries are
unusually charged with blood. He had observed that it is not,
generally, until after four weeks from the last menstrual visita-
tion, prior to conception, that the mammae become sensibly en-
larged; and even then the ratio of enlargement is in inverse pro-
portion to the degree of uterine irritation—enlarging more rapidly
the less the uterine irritation, and remaining longer relaxed un-
der the circumstance of greater.

He was disposed to trace the manner of connexion still farther,
by calling the attention of the society to the facts of abortion, or
of premature labor from uterine irritation; an occurrence by no
means unfrequent. Here, he had found that, as after ordinary
delivery, the mammae filled very soon after the irritation
was removed from the uterus, which had hitherto kept the
mammae more relaxed than ordinary, at least in proportion
to the period of pregnancy. The same principle, he considered
still farther illustrated, by the very conspicuous revulsion from
the mammae, in those serious cases of hysteritis, and its complica-
tions with puerperal peritonitis, in which lactation, after being
regularly established, is caused to cease almost instantaneously;
and which cessation is looked to as an evidence of most destruc-
tive and monopolizing inflammation. The breasts here become
soft and flabby. There is nothing in this case to excite the least
idea that the change is, from any repellent effort, produced in the
mammae; for, at the period of confinement at which these dis-
eases are most likely to occur, we use, with perfect safety, the
most powerful repellents to the breast, which we can bring into
operation, as litharge plaster, &c.

Still farther facts, he said, might be adduced in evidence of the
agency of direct vascularity. In unmarried or unimpregnated
females, who labor under retarded or deficient menstruation, the
mammae are found to swell and sometimes lactate at the men-
strual period. Why, he asked, should this fluxion and irritation
arise, in this distant part in preference to any other, but for vas-
cularity? This is ordinarily the very next change in the sys-
tem, to deficient menstruation, and stands as a kind of monitor
to point us to future dangers (under continuance of the cause,) of
hepatic derangements in the phlegmatic, pulmonary in the san-
guineous and strumous, and nervous in the nervous temperaments.

If this be not the true physiology and pathology of the instan-
ces advanced, we have to conclude that these are to be acknowl-
edged laws of female nature, that her developements cease in some respects short of that which takes place in males—that her increment must so exceed as to amount to surplusage, periodically, for thirty years of her life, for the purpose of her being prepared for her offices, in the perpetuation of the species, and that she must menstruate for that period, more or less, if not pregnant nor lactating; or suffer disease. So is it another law peculiar to her nature, to undergo this change of determination of the fluids, and the excitements of her system, to fit her for the same purposes; and thus is lactation produced for the nourishment of the offspring, when uterine excitement can no longer continue. In obedience to the same law the determination leaves the uterus when no longer needed there, but is necessary at the breasts for the sustenance of the offspring; and when this, in turn, is no longer necessary, it returns to the uterus, again to prepare it for a renewal of its functions.

He would here leave the physiology of the case under consideration, and give his practical views of those menstrual irregularities whose treatment had been so unexpectedly brought under consideration. The pathology on which he practised in these cases might be considered a very mechanical one, but nevertheless he would give his views of it, and the practice founded thereon.

He believed that a common error of pathologists was to look with too much abstraction, on the principles and state of action or excitement for the full solution of every problem in pathology. As in other cases, he was not disposed to conclude that, in menstrual irregularity, excitement alone was all that is to be considered. He wished to avoid being too exclusive on either side. He was not disposed to deny that momentary and transient causes which demand, in consequence of their nature, no special effort for their removal, may and do produce menstrual derangements which continue after the first causes have passed away. Such are certain strong mental impressions, cold, &c. But if the gentleman would contemplate the very peculiar vascularity of the uterus, the distribution of the spermatic and uterine arteries to the uterus and its appendages, the wonderfully varied anastomoses and inosculations with their own branches, with the branches of their fellows in the symmetrical arrangement, and with those of each other, with veins, &c., together with the corresponding venous arrangement, it will not be difficult to conceive of the great liability to obstruction to which many of these vessels are exposed; and they would be able to realize, for themselves, the fact that these derangements constitute by far the most common cause of menstrual irregularities. These important anatomical facts may be easily contemplated, by a visit to the anatomical boards, or opening the large folio of Tiedeman, on the arteries, at the xxvii table.

In view of the vascular arrangements of this part, he had been
in the habit of considering that obstructions of different orders of vessels, and these in various degrees might be fairly looked to as the cause of a very large proportion of menstrual derangements. In amenorrhoea and dysmenorrhoea, the easy and sufficient discharge of function is prevented by the tortion or compression in some degree, which the arterial branches entering the uterus suffer in consequence of some degree of obliquity or depression of the organ to which they are destined. All acquainted with the anatomical connexions of the uterus, or its functions, must be aware of the fact of its great and necessary mobility with the surrounding parts. This is an indispensable part of the design in the arrangement of its attachments to allow the great functional expansibility of the uterus. Keeping in view this fact, in connexion with the abundantly tortuous course of the arteries passing through these loose media of connexion, no effort of the imagination is needed to perceive not only the probability of such tortion or compression, but the almost unavoidable necessity for its occurrence, on the existence of any considerable obliquity or depression. But the truth, he considered, did not rest its support on the great probability which is, on contemplating these circumstances, found to exist; but the seat of the principal distresses or sensations attending these cases seemed to him, plainly to indicate the fact, by referring to the parts of the vessels immediately at and posterior to the obstructed points, that is to say, about the round, broad and posterior ligaments. Thus he considered that the necessary distribution to the vessels, within the uterus, for the purpose of menstruation, whether it be a periodical discharge of blood, or a peculiar secretion (and he was decidedly of the opinion that the former was the fact,) was prevented, whilst pain from unusual fulness attended at the points of mechanical obstruction.

He considered that the only cause of the difference between amenorrhoea and menorrhagia, so far as regarded their pathology was that, in the former the arterial, and in the latter, the venous branches suffered the obstruction; and that thus were produced the differing phenomena in the latter case, as excessive discharge, less pain, &c. In farther evidence of the truth of this opinion, he would state that on due investigation, he had rarely, if ever, been disappointed, in finding the displacement alluded to as cause of vascular obstruction: and that the two diseases yielded with like promptitude to the same treatment, so far as this was dictated by a reference to cause; the chief difference being in the treatment of some of the symptoms in each, for the removal of present distress, as the pain, for example, in the former, and the haemorrhage in the latter.

The same theory of causation, he considered, equally applicable to accelerated and to retarded menstruation; in the latter case arterial, and in the former venous obstruction, existing.
All these things, he considered, entirely consistent with the anatomy and physiology of the parts concurred, as well as the ill success and great uncertainty ordinarily attendant on other means, without such as are adapted to the cause in this view. So great has been this uncertainty, that not long since it was a point of serious doubt amongst the profession, whether there was, indeed, such a virtue amongst medicines as emmenagogue; and this doubt still exists in the minds of many excellent practitioners, from the evidence afforded to the negative side of this question, by their continued failures in protracted experience. Although he was himself on the affirmative side of this question, still, his experience had been attended by results much of the same character during the first eight or ten years of his practice; and even to the present time, so far as he depended on the administration of emmenagogue medicines alone. But for the last twenty years, he had been pretty generally able, any time prior to alteration of uterine texture, to succeed in retarding accelerated and accelerating retarded menstruation, to the proper period, by the same general course of treatment, with which he had been most successful in procuring ease in painful, and abundance in deficient menstruation. This treatment had mainly consisted of strictly preserving the uterus in its proper site, proving thereby not only the truth of the cause, but its identity in both cases.

He was fully aware that there were cases of menstrual irregularity in both ways from other causes, and in these cases, he had met with reasonable success in the use of ordinary emmenagogue powers for difficult, deficient or retarded menstruation; such as camphor in large doses, asafoetida, savin, &c. &c., and in cases of haemorrhage, styptics, as acet. plumb., pulvis, aluminae comp., ergot, &c. But he had found these cases of rare occurrence.

His trials of the sinapisms had been made in such cases as from long continuance, and probably vascular disorganization, had refused to yield to his ordinary treatment; and he was, therefore, happy in being able to hope that they would, in general use, be found more successful than they had proved in his cases. But whilst their use might in some measure stay the progress of mischief for a time, still they might not be expected alone to effect a final cure in any of those cases, depending on the mechanical obstruction, to which he had alluded.

The Society then adjourned to the next Wednesday.

The following account of Sir Edward Home's flagitious conduct, with respect the invaluable manuscripts of the late John Hunter, is taken from one of the daily papers in New York. Comments are unnecessary—every honest man and friend of science will unite, in condemning to everlasting disgrace, a rob-
LITERARY SACRILEGE.—Some two or three years ago, a statement appeared in the London papers, that the late eminent Surgeon, Sir Everard Home, had derived all the valuable portions of his celebrated "Lectures on Comparative Anatomy," from the manuscripts of the great John Hunter, which had been confided to him for a special purpose by the Directors of the College of Surgeons, and then, to conceal the robbery, destroyed the manuscripts. The statement was copied into many papers in this country, but here, too, it was not believed, and the charge was unhesitatingly pronounced an infamous libel.

The charge appears to have been made the subject of a parliamentary investigation, and the London Courier gives the following as the substance of the testimony given by the accuser, Mr. Clift, who was at one time, we believe, an assistant of Sir Everard Home, and afterwards conservator of the books and manuscripts in the museum of the College of Surgeons.

"The museum of the late John Hunter was purchased by Government in 1800, who gave for it in all the sum of £2700. This museum was given by Government to the College of Surgeons in trust for the Public. To their care were also confided Mr. Hunter's papers and manuscripts referring to the collection. Without any one interposing to prevent it, these manuscripts were allowed to be separated from the collection, and were taken in a cart to Sir Everard Home's house, who was considered the only person who could make a catalogue of the collection, and who expressed his intention to do so. Year after year, however, was permitted to pass away without the preparation of the catalogue, and without any supervision of the manuscripts from which alone an account of the museum could be derived, and without the slightest care being taken to ascertain that these valuable documents were in safe custody, when one day in July, 1824, that is, twenty three years after the collection had been in possession of the College of Surgeons, Sir Everard Home informed Mr. Clift, the conservator of the museum, that he (Sir Everard Home) had just been employed in burning all the papers! Mr. Clift thus describes the relation of the extraordinary circumstance before a Parliamentary committee: Sir Everard Home began by telling me that an accident had very nearly occurred at his house; that it had been nearly on fire; that the engineers came, and the firemen insisted in taking possession of his house. They saw the flames coming out of the chimney. He did not wish to admit them, but they insisted upon being admitted. I asked how it happened, and then he told me it was in burning those manuscripts of Mr. Hunter. Where did this conversation pass? On our road to Kew. That was the first intimation you ever had of the destruction of any of the manuscripts! Yes. I said to him 'I hope Sir Everard, you have not destroyed those ten volumes relating to the gallery! He said 'yes.' And then I mentioned perhaps twenty others that I had a perfect recollection of. Will you go on and describe the state of your feelings, and what passed?—I can hardly describe them, because I felt that all those hopes that I had entertained, were entirely frustrated and destroyed. I considered that my life had been spent in the service of that collection, and I hoped to live to see those papers beneficially employed. When I had made inquiry respecting the principal of them, and he told me they were all gone, I said to him 'Well, Sir Everard, there is only one more thing to be done.' He said 'What is that?' I said 'To burn the collection.' In the course of this conversation did you ask Sir Everard what had led him to take this step? I knew that that week Sir Everard had received back from the printer the last proof of his second volume of 'Lectures on Comparative Anatomy,' and that he had used those papers very largely in the composition of that work.

"Can you state, from the knowledge you obtained of the manuscripts
while you had access to them, that Sir Everard Home had largely used their contents in the composition of the volumes which he issued under his own name? 'Yes,'—[Then follows an enumeration of the letters and manuscripts, as far as Mr. Clift recollects, and then a reviewer observes:] 'A range of subjects like this, imperfect as the enumeration is admitted to be, investigated with the originality and the wonderful industry of this extraordinary man, would probably have given a new aspect to the sciences of anatomy and physiology in this country; and there is not wanting evidence that the results, as recorded by Mr. Hunter himself, really had anticipated discoveries which have given deserved and enduring fame to men of other countries.'"

An Inquiry into some Points of the History of Leucorrhea.

By Dr. Marc L'Espine.

The statistical facts which form the basis of the present essay were collected in the Venereal Hospital of Paris. The author insists on the necessity of employing the speculum, as the only means of acquiring a correct knowledge of the disease. In several females, who stated that they never had any leucorrhea, he found a discharge from the os uteri, on employing the speculum. The cases which he has collected of uterine discharge are the most important, and the connexion which he has found to exist between the matters secreted and the condition of the os uteri are worthy of a short analysis. Of 193 cases of uterine discharge which were examined with a speculum, there were twenty-three in which the os uteri was dry, and the vagina was equally free from any matter which could be traced to a uterine origin. In forty cases, there was only a single drop pendent at the os uteri. In the remaining 130, the discharge was more abundant. This discharge is not necessarily stopped during pregnancy. In a large proportion of cases in which the menses were somewhat retarded, the discharge is also found wanting. The fluid is either watery or more or less viscid, and in the latter case of various characters; sometimes transparent, at others opaline, streaked, opaque, white or yellow. The condition of the cavity of the uterus is necessarily unknown; but its orifice may be either healthy or surrounded by a rosy circle; this circle may be of a deep red colour or bloody, or the redness may be granular without erosion; or, lastly, the circle may be eroded and ulcerated, with a smooth or granulated surface. The fact of all these cases having been assembled in the the Venereal Hospital renders it doubtful how far these discharges may be dependent on a syphilitic cause, or originate in simple chronic inflammation. But, as illustrating the connexion between the condition of the parts and that of the discharge, the facts are still of some interest. From a numerical comparison, the author found that the waters and transparent albuminous discharges existed in the majority of cases in which the orifice was healthy, in one half of those where it was surrounded by simple redness, and only in a fourth of the cases in which there was vivid redness or ulceration. The opposite may be said of those discharges which were striated, semitransparent and opaque. However, the nature of the discharge is not solely dependent on the condition of the orifice, nor does a similar condition always produce a similar discharge; for an ulceration of the cervix, which coincides most frequently with the opaque, coincides occasionally with the aqueous or albuminous discharges, and those which are opaque and striated are sometimes met with when the cervix is perfectly healthy. It is probable that the aqueous and albuminous discharges belong properly to leucorrhea; whilst the addition of streaks of purulent opaque white fluid, depends rather on an inflammation which is either simple or syphilitic. So little that is important can be concluded from the author's examination of the vagina and its discharges, that it is scarcely worthy of notice.—British and Foreign Review.—Archives generales Medicines, tome x. Fevrier, 1836.
On the use of Chloride of Soda in Intermittent Fevers. By Dr. Gouzee, First Physician of the Millitary Hospital at Anvers.

Dr. Gouzee was induced to try this medicine, first recommended by Dr. Lalesque, as its cheapness would render it (if efficacious) very valuable to the poor inhabitants of marshy districts, as a substitute for quinine. The dose prescribed was a half a drachm of chloride of soda in four ounces of distilled water, to be taken by spoonfuls between the fits, and so that the last doses should be swallowed shortly before the next paroxysm was expected. The patients were restricted to a light diet, and confined in their beds, or at least their chambers. "Ten cases are reported of ague: in two the intermittent yielded immediately; two others were cured after a slight return; in one there were four attacks, gradually diminishing; in two cases the severity of the paroxysms abated, but it was thought necessary to have recourse to sulphate of quinine; in two others no effect was produced, and in one the disease was aggravated. Dr. G. thinks these cases prove the sebrifuge properties of the chloride of soda to be less marked than those of sulphate of quinine, and therefore that it should not be trusted to except in the slighter cases, and where the patients are readily susceptible of the effects of medicine, as women and children.—British and Foreign Review.—Revue Medicale. Fevrier, 1836.

On Incontinence of Urine. By M. Mondiere.

M. Mondiere has employed the extract of nux vomica in cases of nocturnal incontinence of urine, with beneficial effects. The case in which its efficacy was most strongly shown is that of a young woman, aged twenty, who, from the age of six years, had constantly voided her urine involuntarily during the night. The use of twelve of the following pills put an end to the incontinence: they were continued until twenty-four grains of the extract had been taken, and, during the year following this treatment, there was no return of the disease. Other successful cases are mentioned.

Extracti nucis vomicae, gr. viij.
Feri protoxidi, gr. j. M. fiant pil. xxiv.

British and Foreign Review.—Gazette Medicale. No. 10. 1836.

Formula for an artificial Chalybeate Water.

R. Ferri Sulphatis, 3 ss.
Sacchar, albi, 3 iss. Misce, et divide in chart. xij. equ.
D. S. No. 1.

R. Sodae Carbonatis, 3 ss.
Sacchar. albi, 3 iss. M. et divide in pulv. xij. equ.
D. S. No. 2.

One powder from each of these packets is to be dissolved in a small quantity of water, then mixed and drunk whilst effervescing. Each draught contains about a grain of the carbonate of the protoxide of iron, dissolved in water impregnated with carbonic acid gas, with a little Glauber's salt and carbonate of soda; the carbonate of soda being designedly a little in excess. This is a good substitute for ferruginous mineral waters, where the natural ones cannot be obtained.—British and Foreign Review.—Summarium des Nuesten in der Heilkunde. 1835.