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"Je prends le bien où je le trouve."

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Observations on Chlorosis, with a Case. By J. A. Mayes, M.D., of Sumter District, So. Ca.

In an article on the use of "Sulphate of Iron in Chlorosis," by R. Jarrott, M. D., of Florida, published in the September number of the Charleston Medical Journal and Review, there occurs the following remark: "perhaps there is not a practitioner in the United States, who is not in the habit of treating it frequently." The disease is, indeed, one of such frequent occurrence, that it has appeared to lose the importance which it merits; and from the scarcity of publications in the journals on the subject, we would be naturally led to suppose that it is a disease so very manageable that none require further instruction concerning it. The experience of the writer, however, has satisfied him, that one, at least, of the profession, finds chlorosis to be a disease exceedingly difficult of management. Temporary relief can in all cases be soon afforded; but how common is it, that the same case requires our attention after the lapse of a month or two from the time when we had dismissed the patient as cured. This shows us, that our usual treatment is not radical, but only palliative, and, that the disease is one which ought to engage seriously the attention of the profession.

"Chlorosis occurs principally in female youth; but frequently in married women, both young and old; and occasionally in the young and sedentary of the male sex, and even in men of
adult age, from the influence of sedentary habits and mental anxiety.” In the section of country in which the writer resides, the foregoing observation of Marshall Hall will strictly apply; for the male youth are as often subjects of the disease as the female; and, perhaps, an accurate census of chlorotic individuals, in the middle districts of South Carolina, would show that the males are more subject to it than the females. What the cause is that gives rise to its very great prevalence, we are at a loss to determine, but suppose that it may be owing to deficiency of wholesome food, sleeping in crowded and ill ventilated apartments, as, so far as our observations have extended, the disease is confined to the poorer classes, who have not all the comforts and conveniences around them which the rich have. This remark will, however, apply only to the whites; for the disease is by no means prevalent amongst the negroes. The subjects of chlorosis are often unjustly charged with dirt-eating, and it is no uncommon thing to see them severely punished for an imaginary offence; as if the castigation would correct that depraved appetite which impels them to eat such articles. We think it highly probable that the disease exists before the appetite for clay is formed, and that it would be more rational to attempt the correction of a disordered appetite by medicinal means, than to force the abandonment of the habit by corporeal punishment. Indeed, we have never seen a dirt-eater broken of the habit by punishment, but have, in numerous cases, seen that appetite give way before a judicious course of treatment. It has also, no doubt, fallen under the observation of numerous physicians, to see hale and strong persons in advanced life who have eaten clay daily as far back as they can remember; and who will assure you, that without this indulgence, they never felt well. Their appetites called for the clay as a necessary article of diet, or as a necessary medicine. This latter supposition, may perhaps be the correct one, and the clay be taken for the relief which it affords to the undefined symptoms of gastric uneasiness, of which they often complain. With this view, we feel much more charitable to those unfortunates who form this habit; for bad it is, most unquestionably, when carried to that excess to which they invariably arrive. How the clay acts in confirming the disease we cannot deter-
mine, unless it be explained on the principle that, being a palliative only of a certain set of symptoms, the disease is progressing unchecked and gathering new strength with its duration; that the palliative effect of the clay is sufficient to keep the sufferer ignorant of the actual disease for a long time, and finding the remedy always at hand, and in great abundance, no complaint of indisposition is heard for years, perhaps, after the disease is actually set in. We are, then, ready to admit that the disease is seldom or never aggravated by the clay, in consequence of any inherent poisonous property in itself; but rather incline to the opinion that it does harm only by accumulating in the bowels.

It has been supposed, with some appearance of probability, that the disease is brought on by a deficiency of salt in articles of diet; but my observations have not led me to adopt this opinion. I have recommended the use of highly salted articles of food in families in which the disease was prevalent, and have every reason to believe that my advice was adopted and carried out fully, but with no good result, as the younger members as they grew up successively, all exhibited the same appearances. I have also tried salt freely upon horses, which had acquired the habit of dirt-eating, but in these cases, there was a very manifest repugnance to salt, and the unfortunate "stump suckers," as they are called, could find no relief from any thing except clay, rotten wood, or some other absorbent. Having once owned a "stump sucker," I have seen the great strength of that impulse which leads them to such articles, and I am convinced that horses eat dirt only for relief and not from choice. I have kept the horse mentioned above stabled for some days, and every precaution used to prevent his eating dirt, and confining him during that time to the best provisions and purest water. On being turned out of the stable, he would rush to the bank of a ditch, and with the most unmistakable signs of gratification commence devouring the clay. Such horses are always poor, have little or no appetite, are constipated, and very feeble. The disease is identical with that which we call chlorosis in the human, and for the relief of the gastric uneasiness which they suffer, they resort to clay, the same remedy to which the human sufferers apply.
I cannot, therefore, regard the habit of dirt-eating, and the deficiency of salt in articles of food, as causes of this malady; but at the same time, I confess my inability to point distinctly to any cause. Several circumstances must, no doubt, conspire to produce this result, and we have seen it in some families, offering stronger proofs of the hereditary transmission of disease, than either insanity or tubercular consumption. Its causes are obscure, and through the obscurity, we think, we can discern, with sufficient clearness, the sleeping in crowded and ill ventilated apartments, filthy clothing, and badly cooked food, as very prominent. These may not be sufficient of themselves to produce the disease, as we are satisfied by actual observation, that the reverse will not cure it when once established. However difficult it may be to determine the causes of chlorosis, the same difficulty does not occur in its diagnosis, for the unprofessional recognize it with the utmost facility. It is, however, peculiarly the province of the physician to notice the varieties and stages of the malady, these points never being noticed by the unprofessional, who look upon all cases as being exactly alike, and requiring the same "Copperas Pill" for its relief. The distinctions made by Marshall Hall are founded upon close observation, and, though attended with no great practical importance so far as the treatment is concerned, yet they are important in making up our prognosis. By determining the stage of the disease, we are better enabled to say with certainty what result may be expected, and not render ourselves liable to imputations of ignorance, by having our prognosis falsified. Hall considers the symptoms as indicative of three forms or stages—the Incipient, the Confirmed, and the Inveterate. The symptoms peculiar to each stage are detailed at length in his work on the Diagnosis of Diseases, which every practitioner should have as a book for reference. To that work, we will refer our readers, for an accurate description of the disease, and instead of any remarks of our own on the pathology of chlorosis, we will extract from the same work the following, which embraces all that is probably known of its pathology:—"There is occasionally a remarkable state apparently of the capillary system, giving rise to a hemorrhagic tendency,—to epistaxis, melæna, haæmatemesis, menorrhagia,
and even purpura. Still more generally, the blood discharged from the nose, or taken from the arm, and the catamenia, become almost aqueous and colorless; so that this affection presents an instance in which the vital fluid undergoes considerable change. I have seen the blood scarcely tinge the sheets, and I have seen it resolve itself almost entirely into serum with scarcely any crassamentum." The leading symptom is, then, impoverishment of the blood, and this must proceed from a want of energy in the digestive system; in other words, from an aggravated dyspepsia, but without the local inflammatory symptoms of that disease.

The facility of diagnosticating the disease, and the very plain indications to be fulfilled in the treatment, makes it unnecessary for us to enter more minutely into the consideration of this portion of the subject, and after giving a quotation from that admirable work, Bell and Stokes' Practice, we will enter at once upon the practical part of the subject.

"We fulfil this (the indications of treatment) by the regular and prolonged use of chalybeates, generally combined with purgatives,—often with vegetable bitters. Bearing in mind the possibility of some important organ suffering under congestion or chronic inflammation at the same time, we shall not refuse to remove this local disease by the customory remedies,—a few leeches or scarifying cups, and, unless there be phlogosis of the digestive mucous membrane itself, by free purging: but these measures are not to interrupt, or more than very temporarily suspend, the main treatment by chalybeates; nor must you be misled by the troubled circulation, the immense throbbing and noise in the large arteries, and the hurried and panting respiration, the frequent pulse, the hot and dried skin, into a belief that these are symptoms of phlegmasia, or of febrile state with inflammation, calling of themselves for depleting remedies."

The foregoing gives us, in a few words, the rules for the treatment of chlorosis; but the warning against the adoption of antiphlogistic treatment, however, good as a general rule, must sometimes be disregarded. We presume there are few practitioners who have not found it necessary to stop all tonic treatment and depend upon a strictly antiphlogistic course in some
of their cases. For the benefit of young practitioners, who may otherwise be at a loss how to treat cases like those referred to above, I will transcribe, in full, the notes of a very severe case of confirmed chlorosis, believing that the detailed history of a case may convey more practical information than the system of generalization usually found in books.

Case.—A. D., aged about 12 years, had been chlorotic for several years; was usually relieved by chalybeates; but subject every spring to an aggravation of the disease. April 18th. Represented to be rather worse than he had ever been; confined entirely to bed, and vomits every thing taken on his stomach. Did not visit him, but sent the following prescription: Aloetic purgative pills, to unload the bowels, and after their operation to take a tea-spoonful of the following powder three times a-day: Pulv. columbo, 1 1/2 oz.; carb. iron, 1/4 oz. Mix. 30th. Being informed A. D. was no better, visited him to-day for the first. Found him in an anæmic condition much greater than anticipated; pulse very feeble and frequent; action of heart rather labored; skin dry, hot and glossy white; lips and tongue very white, the latter covered with a white fur and having the appearance of being swollen, the teeth indenting its sides and tip; great prostration of strength; inability to walk, an attempt bringing on palpitation of the heart; considerable tumefaction of the face, with constant pain over the right eye; no appetite; vomits every thing, whether nourishment or medicine; bowels not costive; but no disposition to diarrhoea; abdomen enlarged considerably, but not ascitic; burning sensation in the stomach, but no tenderness under pressure; frequent and protracted attacks of nausea; lower and upper extremities very lean.

This case was diagnosed to be one of confirmed chlorosis, and as the indications were, very strongly, for tonics, the tinct. ferri. mur. was substituted for the powder before used, in doses of 20 drops, three times a-day; recommending light nourishment and an epispastic liniment rubbed over the whole abdomen.

May 4th. No improvement whatever; but symptoms strongly indicate the necessity of stopping the tonic plan of treatment.
The vomiting comes on oftener and the burning sensation in the stomach rather increased. Appearances in all other respects the same. Directed him to take freely of mucilage of slippery elm, and to take nothing else upon his stomach, either as nourishment, drink or medicine. The epigastrium to be vesicated by frequently rubbing with this ointment.

The Mercurial ointment, . . . . 5i.

Iodine and Iodide Potassium, aa 20 grs.

Mix in a mortar, and apply a half drachm every three hours, until the skin is inflamed.

7th. Condition very little improved; has not vomited so often since the vesication of the epigastrium, but still much troubled with nausea; pulse very feeble and quick, 100 to the minute. Continue same treatment.

11th. Has vomited but three times since last visit, and the nausea and burning sensation in the stomach have almost disappeared; pulse a little fuller and not so quick; bowels not costive; dejections very fetid; abdomen shrinking rapidly; face much swollen, and the pain over the right eye persistent: is anxious to eat, but is allowed only a little rice gruel once or twice a-day. Continue the elm mucilage as before, and also the inunctions with the ioduretted merc. ointment, once a-day, so as to keep the surface continually sore; also 2 grs. sub-nitrate of bismuth, three times a-day.

15th. Appearance of the abdomen much changed, being now emaciated; face more swollen, and the pain over the eye rather worse; nausea entirely absent, has not vomited since last visit, and has felt little or none of the burning sensation in the stomach. Directed the bismuth to be continued as before; the diet to be improved by allowing a little tender well boiled chicken once or twice a-day, with rice or hominy, well cooked: 5 grs. pil. hydrargyri every other night; the hair to be shaved from the right temple and the part vesicated by the iod. merc. ointment.

20th. Much relieved of the distressing symptoms with which he had been troubled; no pain over the eye; no nausea or burning sensation in the stomach; tumefaction of the face nearly subsided; keen appetite, and begs to be allowed the privilege of eating whatever he pleases; slight soreness of the gums, with
mercurial fœtor of the breath; pulse 96 to the minute, and feeble; has a little more strength of body than before. Discontinue the blue pill; continue the bismuth as before, and directed a more nourishing diet; but cautioned his parents against overloading his stomach, as his digestive powers were still very weak. Continue the vesicating ointment to the temple and pit of the stomach.

27th. Has not suffered from headache since last visit, and complains of no pain anywhere; has had one or two slight attacks of nausea; is stronger and has a good appetite; bowels been rather loose a day or two; general appearance much the same as hitherto, except a very perceptible falling off in flesh; has a quick pulse, rather frequent, 132. Continue the bismuth, and take 5 grs. blue pill every third night; diet to be improved, and fried bacon allowed him in limited quantities—this latter article he has craved very much; vesication to be continued as before.

31st. Very little change in any respect. Omitted the bismuth, and take 20 drops tincture of iron three times a-day. Continue the vesication.

June 5th. General appearance the same in all respects, but has now an entire freedom from pain, nausea, or any other unpleasant symptoms, except it may be too much looseness of the bowels. His appetite is good, and digestion improving fast, as he can now eat almost any article of diet without the slightest inconvenience; has not much strength, and is still confined to bed the most of the time. Omit the blue pill and tincture of iron: take 2 grs. sulphate of iron three times a-day—a minute portion of opium was added to the iron to check the disposition to diarrhœa. Diet to be nourishing.

11th. Evidently improved since last visit; lies on the bed but little through the day; disposition to diarrhœa checked; appetite very good, and digests almost every thing he eats without any unpleasant symptoms. Still very pale and lean. Directed the discontinuance of all other treatment, and to use for the future the following prescription, unless some symptoms should arise forbidding its use:

\[ \text{Prescription.} \]

\[ \text{R Sulph. Iron,} \quad 5i. \]
\[ \text{Pulv. Capsici,} \quad 3ss. \]
\[ \text{Pulv. Seneka,} \quad 3ss. \]
Make into a mass with a little mucilage of slippery elm, and roll into thirty pills. Take one of these three times a-day, with two tea-spoonfuls of the saturated tincture of *Burr Artichoke leaves* with each pill. Diet to be generous, but guarded against eating too much.

21st. Improving rapidly; regaining his strength, and has walked a considerable distance without fatigue; regaining color in the cheeks, and with the exception of a little too much whiteness would appear to be in good health; appetite and digestion very good. Prescribed the continuance of the pills and tincture until his health may be completely restored.

During the treatment of the foregoing case, it will be seen that there was a positive necessity for the discontinuance of all tonics, and that these could not be resumed with safety for a considerable period; and that the sub-nitrate of bismuth agreed very well at a time when more active tonics might have done positive harm. The preparations of iron are admitted by all to be of the first importance in the treatment of chlorosis, but cases, like the foregoing, do sometimes occur when they are utterly inadmissible. It is important, then, that we should have a substitute which will be more acceptable to the irritable stomach; and the writer of this can speak, from much experience, in favor of the sub-nitrate of bismuth. It is applicable to all dyspeptic affections, so far as my experience has gone, and for that particular form of the disease, attended with vomiting of the ingesta an hour or two after each meal, I regard it as a specific. In those cases, 3 to 4 grs. should be taken immediately after eating. Another article, in the treatment of chlorosis, well worthy the attention of the profession, is the *Burr Artichoke*, in the form of tincture of the leaves. With the Botanical name of this plant, I am not now acquainted, but may, in some subsequent communication, make more particular mention of its medical properties and uses. Sufficient for present purposes it is, to say that it is a valuable tonic, with a decided tendency to stimulate the kidneys, and it is to this latter effect, that I attribute its great value in chlorotic affections.

In the journals, lately, some very favorable accounts of the efficacy of manganese have been published, but not being sup-
plied with any of the preparations of manganese, I have, so far, made no use of them in this class of diseases. But should an opportunity occur soon, I may give it a trial, and communicate the result.

ARTICLE XXV.


The normal structure and healthy functions of the female mammae are indispensable to the propagation and perpetuity of the human species. These functions, when healthfully performed, are in the strictest accordance with a wise provision of Nature, that whilst the changes necessary for the formation of a new being are taking place in the uterus during foetal growth, that a supply of nourishment should be prepared, sufficient for its sustenance, so soon as it has entered into a new state of existence. It is for this most important purpose that the mammary glands are formed—extremely complicated in their organization, acutely painful when in a state of inflammation, and frequently the seat of the most loathsome diseases that can possibly afflict suffering humanity.

The female breast is not only subject to nearly all the forms of disease incident to the other structures of the human body, but also to others which belong to it exclusively.

The almost uniform fatality that attends the malignant diseases of the breast, has the effect to produce, in every case of a tumor developing itself within its structure, the fearful apprehension of the surgeon, and the most anxious solicitude on the part of the patient; and in these, as in all other cases, whether requiring medical or surgical treatment, accuracy in diagnosis is of vital importance: thereby, the surgeon may be enabled to discriminate between cases that are curable, and those that are incurable. Such discrimination may not only prove consoling to him, but will also enable him to quiet the anxious fears of his patient. Every tumor of the breast naturally excites suspicion, and demands a careful examination, since they are all
liable to be called cancerous, and treated as such, thus subjecting the patient to unnecessary and severe operations. It is nevertheless true, that a large majority of tumors of the breast are not cancerous.

The diseases of the breast have been divided, by Sir Astley Cooper, into two classes—viz: Malignant and Non-malignant.

The latter class are again sub-divided. First, into those diseases which are the result of common inflammation, whether of acute or chronic character; and, secondly, into complaints which are the result of specific and peculiar action, which are not malignant, and do not destroy the adjacent tissues, by involving them in the same degeneration of structure with themselves, but simply displace and transform them into a kind of enveloping cyst, or sac, which, when entirely removed, has no disposition to return, and leaves no constitutional traces of disease behind.

Those of a malignant character, on the contrary, are not only the result of a specific local action, but are also connected with an unhealthy constitution. They not only affect the parts in which they may be situated, but ever seek to destroy the surrounding textures in their extension, by metamorphosing them into their own degenerated nature. In their progress, the constitution becomes more and yet more contaminated, so that local disease of analogous character is frequently produced in other, and remote, parts of the body. When removed, there can be no guaranty that they will not again return; and as a general rule, they are reproduced. Operation, only stays the progress of the malady for an indefinite time, when it returns with redoubled energy to the attack, and ceases only with the termination of the earthly career of the unfortunate victim.

According to the classification of Sir Astley, the first subdivision of the second class of diseases of the breast is comprehended in those which involve the organ in acute inflammation, as milk abscess, or a more chronic form of inflammation, which remains stationary for a considerable time, and finally terminates in an indolent abscess; and lastly, inflammation followed by an obstruction of one or more of the lactiferous tubes, producing a lacteal tumor.

The second division of the second class comprises much the
Gordon, on Chronic Mammary Tumor. [September,

largest number of diseases of that organ, embracing the several varieties of tumor, as follows:—
1st. The Hydatid. 5th. Large and pendulous Breast.
2d. The Chronic Mammary. 6th. The Scrofulous.
3d. The Ossific. 7th. The Irritable Breast.
4th. The Adipose. 8th. Ecchymosis of the Breast.

In the first class, but two diseases are enumerated, viz., those of Fungoid character and Carcinoma.

It is not designed, in the present article, to notice in detail the peculiarities of these several species of the different classes, but the remainder will be devoted to the description of the second variety mentioned in the second sub-division of the second class—or,

CHRONIC MAMMARY TUMOR.

This disease is incident to females in early life, and those of the most robust and healthy constitutions. It rarely appears earlier than the fifteenth, or later than the thirtieth year of age. It occurs principally in unmarried women, and those who have not borne children. The constitution does not generally suffer, either at the commencement, during the progress, or at the termination of the disease, unless from the tormenting anxiety of the patient's mind, as to whether or not it is of schirrhous nature.

The cause of the disease, in the opinion of Sir A. Cooper,* "is the result of the sympathetic influence of the uterus, the excitement of the one organ, leading to an increased determination and action in the other, and thus a new growth is produced."

The symptoms which mark the invasion of this disease are as follows:—The growth of the tumor is external to the true mammary structure, beginning at the surface, and extending internally as it increases in size. Sometimes, however, it arises from the posterior surface of the breast, and is there deeply situated, and the distinguishing marks are less apparent. It is of a rounded, lobulated form, possessing considerable mobility, and is not attached either to the skin or subjacent tissues. In the earlier stages, there is entire freedom from pain or inconvenience of any kind, without redness, or the least disposition

to ulceration. But, after progressing for some time, it does occasionally become painful, the pain extending up the side to the shoulder of the affected side, and is described as being of a dull, aching character. The tumor may also become tender to the touch, and more painful at the approach of each catamenial period. Thus it may continue for months, and even years, slowly increasing, without ever attaining a very great size. Generally there is no constitutional disturbance, the patient's health remaining unaffected. Occasionally there is enlargement of one or more of the axillary glands, the effect of simple irritations, and not productive of any formidable disease.

The more important diagnostic marks may be reduced to the following:—The early age at which it occurs, almost uniformly prior to thirty, while those of great malignancy are rarely manifested till a later period. It may also be distinguished from malignant disease by the freedom from pain, except after its existence for a considerable length of time, and the general health continuing unimpaired. In this affection, the superficial position of the tumor, together with its great mobility, and the tardiness of increase in swelling, from a striking contrast with those of malignancy. Lastly, it is more peculiarly distinguished by the lobulated feel to the touch, being formed of a number of distinct lobes connected together, with intervening depressions between them, and whatever size it may attain, it still maintains the same character. The increase in bulk, obtains by a corresponding increase in number of lobules.

By dissection, it is observed that the whole tumor is encysted by a membrane of fibro-tendinous character, analogous to that enclosing, dividing, and occupying the interstices of the true glandular stricture, and to which it is attached, but at the same time so imperfectly as to admit of its free motion on the breast. When first divested of the enveloping sac, it appears to be made up of large lobes, but these are, when divided, again susceptible of sub-division to an almost indefinite extent, and when thus divided, have very much the resemblance of the glandular arrangement of the breast, with the exception of the absence of the lactiferous ducts.

But little benefit is to be derived in the treatment of this malady, either from therapeutical remedies, or the observance
of hygienic rules; for, as previously observed, the patient is most commonly in the enjoyment of perfect health, each organ enjoying a state of healthful exercise, and performing its functions regularly, and naturally. If, however, any of the functions of the body are disordered, it is important that they be restored to their normal condition: if there exists habitual constipation, attended with imperfect hepatic secretion, or the catamenial function is imperfectly performed, they will demand appropriate treatment.

Iodine, and its different preparations, have been recommended to discuss the tumor, by increasing the activity of absorption, but they have not proven of much value in the attainment of the desired object.

As these are growths of long continuance, as might therefore be reasonably supposed, considerable length of time is required for their removal by absorption: they not unfrequently gradually disappear upon the cessation of the peculiar uterine excitement upon which they depend. The most speedy, and effectual cure, is produced by pregnancy. The tumor frequently entirely vanishes during the period of utero-gestation, and if not then, with almost absolute certainty, during the subsequent lactation.

When the disease is progressively on the increase, and has become painful, with danger from a loss of substance of the breast, from the size and weight of the tumor, and there is no probability of the occurrence of conception, it is advisable to remove it with the knife—an operation neither formidable nor dangerous, and which, since the discovery and use of anaesthetic agents, has been disarmed of all its terrors.

Case.—Mary, a favorite yellow servant girl, 17 years of age, the property of Mr. A., about eighteen months previous, discovered a small tumor occupying a space near the external margin of the areola of the right breast, which has regularly increased, till about the size of a turkey's egg. Twelve months afterwards, a small tumor of similar character appeared over the superior border of the right mamma, which also increased regularly until it had attained the size of a pigeon's egg. For the last few months, she has complained of a dull aching pain in the right breast, extending to the shoulder. There has been no
pain whatever in the left breast. The history and symptoms rendered the diagnosis so obvious, as to admit of no doubt as to the true nature of the disease.

As there was but little probability of conception taking place, (she had been living with a husband two years unfruitfully,) it was, in consultation, determined to remove the tumors by operation. On the 16th of July, 1849, assisted by Drs. Russell and Lowe, we proceeded to their extirpation in the following manner:—The patient was placed under the influence of chloroform, when a rectilinar incision, four inches in length, was made over that of the right breast, in the direction of the fibres of the pectoralis major muscle, and after the complete division of the skin and subcutaneous cellular tissue had been effected, the remainder of the dissection was easily accomplished by means of the fingers and handle of the scalpel, the knife being used only for the purpose of the division of the aponeurotic attachments to the breast. Two small arterial branches only, required the ligature.

The smaller tumor of the left breast was removed by a transverse incision in the direction of the longitudinal diameter: no ligature required. The operations required but a very short time, the patient being perfectly tranquil. The largest tumor, together with its appendages, weighed 3½, the smaller 1½ ozs. The wounds united in part by the first intention. The recovery was rapid, and she is now perfectly well.

In conclusion, it is proper to state, that Mary’s health had always been good. Menstruation was established at thirteen years of age, and has since been regularly and naturally performed. The most remarkable fact in her case, was the development of a second tumor, in the opposite breast, a year after the appearance of the first—a circumstance that has not been mentioned either by Mr. Travers, Sir Astley Cooper, or Dr. Warren, comprising those of the most extended observations, and who have written most extensively on the subject.
ARTICLE XXVI.

On the relations between the Climate and Diseases of our State.

By W. L. Jones, M. D., of Athens, Georgia.

It is generally believed, that a large proportion of the abnormal conditions of the human system are referable to external influences. We speak of the diseases of northern and southern latitudes, of mountainous and marshy districts, and every one recognizes the distinctions; but their convictions are based upon general considerations, and not upon accurate examinations of the relations between organized beings, and the physical agents which surround them. It is a subject, however, worthy of the most careful investigation, and there is not one, perhaps, to which the attention of the Physicians of Georgia could be more profitably directed than the relations between the climate and diseases in our State. The excess or diminution of the supporters of animal life, oxygen, heat, light, &c., &c., are each capable of disturbing the natural functions of the body. Now these physical agents are not only different for separate portions of the earth's surface, but are constantly varying annually and diurnally in the same locality: the first, producing the forms of disease incident to different regions; the second, the forms prevalent during the different seasons; the last, effecting changes in our sensations, and acting as exciting causes of disease. These general propositions strike every reflecting mind—is it possible to trace out these relations accurately and in detail? Considering the proverbial changeability of the weather, men are not generally disposed to believe that the influences of climate upon the human system are capable of being reduced to laws. But he who has taken one step in the investigation of the works of nature with the true spirit of a philosopher, cannot resist the conviction, that one of the most essential characteristics of all the phenomena which surround us, is a never-varying observance of law and order. Even the "capricious minds" do not escape the universal rule, as modern researches most beautifully show. The thermometer, it is true, indicates various degrees of temperature, during the different months of the year, at the same locality; but if the averages of a series of years be compared with each other, the differences
would be scarcely appreciable. Not only the mean temperatures, but the maxima and minima also coincide in like manner. Knowing these constants, therefore, for any locality, it would be easy to trace the relations between them and the diseases incident to it. The same is true of all other physical agents, numerous observations indicating a like invariability with reference to them all. Admitting, therefore, the possibility of obtaining "physical constants," and consequently of tracing the relations between them and diseases, how shall we proceed?—Just as in all other purely observational sciences: we must observe the phenomena carefully, and extensively enough, to eliminate accidental or temporary perturbations. The phenomena in question are, the intensity of climatic agents on the one hand, and coincident diseases on the other.

What are the physical agents which, taken together, constitute climate? It is not known what are all of its elements, nor is the relative importance of those recognized, accurately established. The influence of temperature is decided, as is clearly manifested by the different forms of disease which prevail in summer and winter, in low and high latitudes. From the great influence which Light is known to exert over vegetable life, it is possible, and even extremely probable, that it also modifies animal life: we must regard it, therefore, as an element of climate, until proved to be inoperative. Atmospheric Electricity is probably another influential agent, but unfortunately our knowledge in reference to it is extremely limited. The amount of Oxygen present in the atmosphere is an important circumstance. It is probable, from the analysis of air collected in a great variety of places, that the relative proportions of nitrogen and oxygen are the same under all circumstances, but their absolute quantities in any locality are subject to considerable variations. Thus a cubic foot of air would contain a larger quantity of both of its constituents when the thermometer stands at zero, than when it is at 90°. Again: supposing the barometer to remain at the same height, there would be more air, and consequently more oxygen present, if the atmosphere is dry, than if it is damp; for in the latter case, the column of mercury is sustained by the weight of the vapour plus, that of the air—the latter, therefore, must exist in diminished quantity.
It would appear, also, that the amount of moisture in the atmosphere exerts another very decided influence, by affecting the function of the skin. Experiments, recently performed by Becquerel and Breschet, show that the prevention of evaporation and exhalation from the surfaces of rabbits, by coatings impervious to water, caused the animals to die of cold. Now, it is obvious that a damp atmosphere would tend to produce the same effect, since evaporation goes on rapidly when it is dry, and slowly when it is moist. This is confirmed by every one's experience of the depressing influence of damp weather.

Heat, Light, Electricity, Oxygen and Moisture, are probably the most important physical agents; but as it is yet so uncertain what may, or may not affect the human system, it is desirable to have accurate descriptions of the localities where records are kept, whether cleared or not, level or hilly, having stagnant or running waters, the nature of the soil, character of vegetation, &c.; also the number of fair and cloudy days, the amount of rain, the direction and force of the wind. It is very desirable to obtain records of these things in all parts of the State, through a series of years, together with records of the diseases prevailing through the same period. It is easy to anticipate what useful and important results might be obtained from such materials; among other things, the cause of malarious diseases would in all probability be discovered. Of course, these materials can only be obtained from the co-operation of all the physicians in the State, and we would respectfully and earnestly request them to unite in this great undertaking.

In making observations and keeping records, there are several particulars to be observed, the neglect of which would very much diminish their value. It has been found that, during the day, the air is warmer near the surface of the earth than it is above, but just the reverse is true in the night. At the latter time, as much as 10° difference has been observed between a thermometer on the ground and one a few feet above. In making observations, therefore, which are to be compared with each other, it becomes necessary for all the thermometers to be situated at the same elevation, and we would suggest 10 feet from the surface as a convenient height, upon which all observations might agree. Again, care should be taken that no
direct or directly reflected rays of the sun should fall upon the instrument: the latter point is often neglected. It is difficult to determine the intensity of light by direct observation, but we know that, as a general rule, it varies inversely as the square of the cosine of latitude, and can therefore avail ourselves of this formula. It is also very difficult to make observations on the electrical state of the atmosphere; but here also we can take advantage of some general laws relating to it, already established. It is known that there are two daily maxima and minima of positive electricity, the latter occurring just before sunrise, and about 3 o'clock, P. M., the former between these points. There is also an annual maximum and minimum, the former in winter, the latter in summer. Observations on the amount of moisture in the atmosphere, are the most difficult and require the greatest care. The method almost universally adopted to determine it is to ascertain the dew-point. This is the temperature of the air at the moment the moisture in it cannot exist as vapour, but begins to be deposited in the form of water. It is obtained by cooling a body, a silver cup filled with water, for instance, and noting the height of a thermometer in the water at the instant moisture is deposited on the outside. Daniell's hygrometer is a beautiful instrument, constructed on this principle, and in a moist climate, where the requisite amount of cold can be produced by the evaporation of ether, it is the most convenient instrument which can be used. Experience has shown, however, that it is unsuited to the high and dry portions of our State, as a sufficient reduction of temperature cannot be produced there without ice. Another method of determining the dew-point, which is practicable in any climate, is by the Wetbulb hygrometer. This consists of two similar thermometers placed near each other, the bulb of one surrounded by muslin and kept constantly wet by a thread passing from a cup of water upon it. Evaporation of the water would depress this thermometer, and the difference between the two instruments would indicate the rate of evaporation. Now the rate of evaporation is necessarily affected by the amount of moisture in the atmosphere. Knowing the former, therefore, we can determine the latter. M. August has constructed a formula for the Wetbulb hygrometer,
which is regarded by meteorologists generally as affording the surest indications of all the methods proposed. It is \( E = E' - 0.000748 (t - t') b \), in which \( E \) represents the tension of the vapour in the air at the temperature of the dry thermometer \( t \); \( E' \) its tension at the temperature of the wet thermometer \( t' \); \( b \) the height of the barometer. A centigrade thermometer is supposed to be employed, and a barometer whose scale is divided into millimetres; but it would be easy to convert Fahrenheit's scale into the centigrade and inches into millimetres. Having obtained the tension of the vapour in the air, we have only to refer to tables constructed for the purpose, to find the corresponding dew-point. It will be observed that the height of the barometer enters into this formula, and this method therefore can only be employed where daily observations of this instrument are made.

In making records of diseases and deaths, it is necessary to mention several things which have been discovered to modify the influence of external agents. Sex is one of these; thus numerous tables collected in different parts of Europe, show that the mortality of boys is much greater than that of girls during the first five years of life; also between the ages of 20 and 25, when the passions reach their greatest intensity, the mortality of the male preponderates. Again, of calculus patients there are about 21 males to one female. Age also is an important circumstance, the number of deaths being regularly on the decrease from birth to the age of 15, and increasing regularly afterwards. Occupation is another disturbing cause, mortality being greatest among physicians and teachers, and least among agriculturists and theologians. The task proposed is difficult and laborious—the incentive to action the relief of suffering humanity.

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**ARTICLE XXVII.**

*Extensive Gun-shot Wound of the Knee-joint—Amputation on the third day under Chloroform—Death of the patient soon after the operation.* By D. S. Brandon, M. D., of Thomasville, Georgia.

Mr. V., a young man about 25 years of age, of good constitution, sanguineo-nervous temperament, was thrown from his
horse on the 15th of June last, on returning to the house of the gentleman with whom he lived, in Decatur county, and in the fall one barrel of his gun was discharged, the knee receiving the whole load about two inches above the joint. He was removed to the house, and Dr. Holland was immediately called. He examined the wound, and decided that the limb would have to be removed. On the next day, Dr. Adams of this place was sent for to assist in the operation. He could not leave his family, and requested me to attend.

I arrived at the house where Mr. V. was, early on the morning of the 17th. He had considerable fever; pulse 126, full; somewhat irritable, with a countenance plainly indicating great suffering. Dr. Holland and myself again examined the wound, and determined upon the operation. He very kindly proposed that I should operate, which I consented to do.

The patient being placed upon the table, the circular operation was performed at 11 o'clock, A.M., under the influence of chloroform. I poured about a table-spoonful of the liquid on a bit of sponge, and the patient was allowed to inhale it for about a minute, when the sponge was again wet with about half the quantity first used. Complete insensibility being produced, the operation was performed and the arteries tied (two in number) in about two minutes. When the first cut was made, the muscles of the face were noticed to corrugate, and the limb was slightly drawn up, the only evidences of pain observed during the operation. About fifteen minutes were allowed, in order that other vessels might be tied if they should spring, during which time nothing unusual was observed in the appearance of the patient; after which the stump was dressed. He was pale, having lost a considerable quantity of blood, though his respiration was observed to be perfectly free and easy at the same time. About the close of this period, his color was thought to improve, and sensibility was evidently returning: pulse feeble, but not irregular; asked some pertinent questions, such as, "How are you getting on with the operation?—will you soon be done?" &c. At this moment all was thought to be well; but in a very short time the mind was lost—a kind of spasmodic writhing came on, partaking apparently both of a voluntary and involuntary character. Three or four persons were now
requested to hold him on the table, from which he had not been removed. At times, it required almost my entire weight to control the stump of the amputated thigh. In this condition, he died in about an hour and a half after the removal of the limb, breathing apparently with perfect ease up to the last few minutes.

On examining the knee-joint, the femur was found broken about two inches above the joint, and the condyles driven asunder, the inner and under portion of the internal one being completely shot away. Powder, wadding, and a portion of the shot were found in the popliteal space, the remaining portion having ranged down, and lodged in the calf of the leg, as it was half flexed upon the thigh at the time the gun was discharged.

Dr. Reeves, who was present at the operation, related the case of a man in South Carolina, who took chloroform as a mere matter of experiment. A convulsive movement of the whole system soon came on, of which he died the next day. The death was attributed to the chloroform. Was it that agent, or the powerful shock the nervous system received from the discharge of the gun, followed on the third day by the amputation, that caused the death of Mr. V.? What experienced man, in the use of chloroform, will say? I am sure I cannot. Were I the subject of just such a misfortune, I would take that powerful agent under the same circumstances, though I would not administer it unless specially requested.

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**PART II.**

**Reviews and Extracts.**

Practical Views on Medical Education, submitted to the members of the American Medical Association, by the Medical Faculty of Harvard University.*

The undecided state of public opinion in regard to some of the fundamental points in a course of medical education, including among other things the portion of the term of pupilage proper to be spent in attendance on lectures, is thought, by the undersigned, to justify a further consideration of the subject. In

* We have published this article, not only because we have been requested to do so, but for its own intrinsic merit. These views of the Medical Faculty of Harvard University, upon some of the leading questions now under general discussion, are entitled to a fair examination, and most of them, we doubt not, will eventually meet the approval of the medical public.—[Edr.]
some of its relations, this subject has already been discussed, in the Transactions of the American Medical Association for 1849, in two reports, pages 353 and 359, to which the reader is particularly referred. The following condensed, but more general view of the subject of medical education, is now respectfully submitted to the members of the Association.

Boston July 10, 1850.

1. Medical instruction should be adapted to the power of students to receive and retain what is communicated to them, and should be confined to what is important to them in their subsequent life.

2. In modern times the constituent branches of medical science are so expanded, that they are not acquired by any physician in a life-time, and still less by a student during his pupillage. The same is true even of many individual branches. It is not, therefore, to be conceded that "a scheme of scientific instruction should embrace the whole science, and no part should be omitted;" nor that "a well-digested plan of lectures embraces all that is to be known and taught." Medical science has at this day become so unwieldy, and contains so much that is unnecessary, at least to beginners, that the attempt to explain to students the whole, is likely to involve the result of their learning but little.

3. In Chemistry, at the present time, a thorough adept is unknown. No man living knows all the recorded facts, or all that is to be known and taught, in that science. Organic chemistry alone fills large volumes, though yet in its infancy.

4. In Materia Medica there are some thousands of substances and their compounds, which possess what is called a medicinal power. Yet it is not probable that any physician effectively reads the one half, or remembers one quarter, or employs in his yearly practice one tenth, of the contents of the common dispensatories.

5. In Pathology, so complicated and various are the conditions attendant on the individual forms of disease, and their relations with idiosyncracy, temporary condition and external agency, with organic lesions and functional disturbances, that few of the most experienced pathologists can be said to understand their whole science, or to be always competent to its successful application.

6. In Etiology, the theoretical literature of causes has spread itself out to an extent, which is burdensome and unprofitable. It is true, that "man, from his nature, is subject to suffering, disease and death;"—but it is equally apparent, that "the causes by which these conditions are produced, are ascertainable." We
know nothing of the vehicle of cholera or influenza, nor is it probably in the power of any physician, by any art, or application of his knowledge, to produce in a given healthy man, a case of common pneumonia, or of acute rheumatism,—of diabetes or Bright's kidney,—of hypertrophy or of cancer,—or even of a common boil, or wart.

7. In Therapeutics, many hundred volumes exist, such as would not have existed, could a knowledge of the cure of diseases be made so easily tangible that it could be spread before the student in the three or five years of his pupilage.

8. In Anatomy, general and special, microscopic and transcendental;—in Physiology, with its intricate ramifications;—in Surgery, of which several subordinate specialities constitute distinct living professions; it is not to be admitted that the means or time of any ordinary course of lectures, can furnish full and complete instruction. Certainly it must be difficult to arrange a course of lectures on any of the extensive sciences which now constitute medicine, if it be indeed true, that "the teachers are not justifiable in suppressing any portion."

9. It is the business of lecturers in medical schools, to condense and abridge the sciences which they respectively teach, to distinguish their essential and elementary principles, to sift carefully the useful from the superfluous, and to confine the scope of their teachings, as far as possible, to what is true and profitable, and likely to be remembered and used by their hearers. It is unfortunately too true that, "in an extended system of instruction, there is much that the student will not master, much that will have escaped his attention, much which he ought to know, that he has not learned." The remedy appears to be, to teach him well what he can and should master, and briefly to point out to him the sources, fortunately abundant, from which he may obtain the rest.

10. Much injury is done to the cause of true learning by medical assumption, amplification and exaggeration, by premature adoption of novelties, and by tenacity of theories, personal or espoused. Students, in all former years, have expended much time in learning, what it afterwards cost them both time and trouble to unlearn;—in acquiring, not merely the truths of science, but the crude announcements and plausible doctrines of sanguine or ingenious men. How much time has been wasted in some of our distinguished seminaries in acquiring the visionary, and now neglected, theories of Rush and Broussais!

11. The most commonly exaggerated branch of medical science is therapeutics. Enlightened physicians well know, that many diseases are incurable, and that others are subject to laws of duration, which cannot be interrupted by art. Yet students
sometimes return from medical schools persuaded that their instructors know how to cure a large part of these diseases, and that if others are less fortunate, it is attributable to their own fault.

12. Medical teachers should keep peace with the progress of their respective sciences. Yet in their haste for the promulgation of novelties, they should not omit to give the proper consideration to the older and more settled principles of science. Medical men are liable to commit the error of adopting premature opinions, unsound practice and inconvenient changes of language and nomenclature, sometimes from a love of display, and sometimes from a want of self-reliance, and a fear of being thought behind the literature of their time.

13. The length of a course of lectures is not the measure of its value to the student. A course of lectures should not outlast the curiosity of its hearers, nor their average pecuniary ability to attend. Custom in this country has generally fixed the limits of these things at about four months. A comprehensive and judicious course, confined to the enforcing of necessary points, is far more profitable than a more discursive course to a wearied and diminishing audience.

14. Lectures are chiefly wanted to impress by demonstration the practical branches of science, and they are most effective in places where the facilities for such demonstrations can be commanded. Anatomy requires extensive exhibitions by the teacher, and personal dissections by the student. Chemistry and Materia Medica require illustrations by specimens and experiments. Pathology needs the aid of autopsies, museums and the clinical demonstrations of large hospitals. A knowledge of Obstetrics is not perfected without apparatus and practice. Surgery is acquired by witnessing numerous operations, surgical diseases, illustrated explanations, and by personal practice on the dead body. Physical exploration is wholly demonstrative. A knowledge of auscultation can no more be acquired from books, or abstract lectures, than a knowledge of music, or of individual physiognomy.

15. The intermediate period between lectures, should be spent by students in active and original study, approved and confirmed by regular recitations, and by such opportunities as can be commanded, for practical, personal experience. Private schools for small classes, and the private teachings of individuals, who are suitably qualified and situated, are more advantageous for two-thirds of the year, than either the fatiguing jostle of overcrowded rooms, or the listless routine kept up by the survivors of a passive class.

16. The usefulness of a medical school depends not so much on the length of its session, as upon the amount of education,
preliminary and ultimate, which it requires, the fidelity with
which it exacts its own professed requisitions, and the train of
healthy exertion, active inquiry, and rigid, methodical, self-
regulating study, to which it introduces its pupils. The
longest lectures are of little use to students who want a com-
mon education, and whose medical education does not qualify
them afterwards to observe, to inquire and to discriminate. The
exacted evidence of three years of well conducted study, is bet-
ter than the exhibited ticket of a six months course.

17. The subjects most important to be well taught in medical
schools, are the elementary principles which constitute the
frame-work of medical sciences, and the mode of thought and
inquiry which leads to just reasoning upon them. After these,
most attention should be given to selecting and enforcing such
practical truths, as will most certainly be wanted by the young
practitioner in his future career of responsibility.

18. The things to be avoided by medical teachers, are tec-
ticalities which are unintelligible to beginners,—gratui-
tous assumptions and citations of doubtful authorities,—prolix
dissertations on speculative topics,—excessive minuteness in
regard to subjects, which are intricate and but little used, and
therefore destined to be speedily forgotten. To these may be
added controversies, superfluous personal eulogiums and crim-
inations, and all self-exaggeration, personal or local.

JACOB BIGELOW, Prof. of Materia Medica and Clinical Medicine.
WALTER CHANNING, Prof. of Midwifery and Med. Jurisprudence.
JOHN WARE, Prof. of Theory and Practice of Medicine.
JOHN B. S. JACKSON, Prof. of Pathological Anatomy.
OLIVER W. HOLMES, Prof. of Anatomy and Physiology
HENRY J. BIGELOW, Prof of Surgery.
E. N. HORSFORD, Prof. of Chemistry.

Ascending or Intermuscular Hernia. By James Luke, Esq.,
Surgeon to the London Hospital.—(London Medical Gazette.
N. Y. Journ. of Medicine.)

There is a variety of inguinal hernia apparently not generally
known to surgeons, which I venture to designate as Ascending
or intermuscular, (for reasons which will appear in the sequel,)
to which I am anxious to draw attention from the circumstance
that it is liable to cause some difficulty in diagnosis, and when
strangulated to become a matter of more than usual interest
and occasional embarrassment.

To illustrate the subject, it is proposed to relate a few cases,
which partake of the same general character, although they
exhibit modifications of sufficient interest to be noticed in the
description. Before relating those cases, I propose to give
some account of the form of hernia to which they relate, that
a clearer understanding of its mode of formation may be ob-
tained. In doing so, it will be needful to recall to the recollec-
tion of the reader the relations which a hernia, in the most com-
mon forms, bears to the inguinal rings and canal through which
it descends, because the immediate subjects of this communica-
tion are examples merely of deviations from those relations.

It will be remembered that an inguinal hernia of the ordinary
kind, after issuing from the abdomen through the internal ring,
descends in the inguinal canal in front of the spermatic cord in
the male, and of the round ligament in the female, from whence
it passes through the external ring to the scrotum in the for-
mer, and to the pubis in the latter.

A hernia, however, at its exit from its abdomen, is liable to
be pushed aside, or have its course altered, by any opposing
obstacle; for its tendency is always to pass in that direction in
which it meets with least impediment to its course. In the
cases before us, such impediments do occasionally arise, and
more particularly in the female—a circumstance attributable to
the lesser anatomical development of the canal and external
ring in that sex, from which probably proceeds the more fre-
quent occurrence of the form of hernia mentioned below. In
the male sex, the canal and rings are sufficiently large to allow
of a hernial descent, so that we continually observe that the
direction of an inguinal hernia in the male is downwards, unless
it be turned aside, or its direction altered by artificial means,
and especially by the pressure of a truss. In the female, how-
ever, natural obstacles occur in the downward direction; it
therefore sometimes happens that the lesser impediments to the
progress of a hernia lie in an upward or outward direction; in
which case the tumor, after passing from the internal ring,
turns towards the ileum, and becomes interposed between the
layers of abdominal muscles above and on the outside of the
ring. Such hernia are covered anteriorly by the internal
oblique muscle, and bear nearly the same relation to the tegu-
mentary surface as an ordinary hernia confined to the inguinal
canal, but differ materially from it in its relation to the internal
ring. The tumor lies nearer to the ileum in this form of hernia,
in a position which, being not usually occupied by hernia, may
give rise to some difficulty in diagnosis, and may, through inad-
vertence, be mistaken for some other disease, either of the
cæcum on the right, or colon on the left side. It also lies
somewhat buried, when small, under a covering of muscular
structure, and occasionally under an accumulation of adipose
tissue, and may, on that account, be passed over altogether
without notice. In its position it constitutes the kind of hernia
which I have named above. It is important that such cases should be well understood; and the relation of the following cases will probably help this matter. Although not the first, the most perfect specimen of the kind of case referred to in the foregoing observations, occurred to a person about 60 years of age, residing in the neighborhood of Bethnal Green. She was of thin, spare habit, and when I first saw her, had suffered during four days from obstruction of the bowels and sickness—the symptoms having increased in severity up to the time of my visit. On the day previous, a fulness had been observed a little to the inside of the right spine of the ileum, which had not been noticed during the two first days of her illness, and was supposed to be connected with the cæcum, from the circumstance of its position and apparent depth. When I examined the part very carefully, it appeared to contain an ill-defined tumor, lying deeply, but within the walls of the abdomen, and not within the abdomen itself. Its position was to the outside of the situation of the internal ring, with its inner side resting upon the ring. It was somewhat rounded in form, and painful on pressure. Connecting it with the existing symptoms of intestinal obstruction, I concluded that it was a hernial tumor in a state of strangulation, and advised an operation, in the performance of which the integuments were incised perpendicularly over the tumor, and, consequently, on the outside of the internal ring. The abdominal tendon being divided, the tumor was brought into view, covered by the lower border of the internal oblique muscle. It was about the size of a pullet's egg, and had the ordinary characteristics of a strangulated hernia, but with its neck of communication with the abdominal cavity at its lowest part, this being at the internal ring, where the stricture upon the contents was found, apparently produced by its margins. These were divided without opening the sac, and the hernia reduced within the abdomen. Relief to the symptoms of obstruction speedily followed this proceeding, and recovery gradually, though slowly, took place—it being delayed by circumstances unconnected with the hernia.

The next case came under my notice in consultation with Mr. Byles, in a female between 50 and 60 years of age, suffering from acute symptoms of intestinal obstruction, attended by peritoneal inflammation and abdominal tension. She was the subject of a moderate-sized umbilical hernia, which was irreducible, without impulse, and inflamed. On examining the lower part of the abdomen, there was discovered a small tumor on the left side, lying deeply under a thick covering of fat, and exteriorly to the usual seat of an inguinal hernia. It was painful when pressed. It was considered to be a hernia, and in a
state of strangulation, although some doubts were entertained whether the umbilical hernia was not really the one strangulated. An incision was made through the abdominal tendon, which exposed to view a small tumor lying as in the former case, exteriorly to the internal ring. When the sac was laid open, its communication with the abdomen was found to be at its lowest part, and the intestine so tilted upwards over the upper and outer margin of the internal ring which formed the stricture, that some difficulty was experienced in getting at the part which is usually divided for its relief. This division being accomplished, the hernial contents were reduced into the abdomen, and the wound closed. This patient had a good recovery. At a distance of five weeks from the operation she was seized with apoplexy, and died.

A modified form of the same kind of hernia came under my notice, in a post-mortem examination of a patient who had been operated on by the late Mr. R. C. Headington, formerly an upright and distinguished surgeon to the London Hospital. The subject was a female, about 60 years of age, and the operation was performed in the London Hospital. The hernia, I was informed, presented the ordinary appearance of an inguinal hernia of the left side, descending upon the pubis through the external ring. The requisite incisions were made over the tumor, and the lower part of the sac laid freely open. Of the seat of stricture, I was not informed. When efforts at reducing the hernial contents were made, they were attended with apparent success; but, on remitting the effort, the contents returned to their former place in the sac. Renewed efforts were attended by the same results; and, after being several times repeated, with each time a recurrence of the descent, were finally abandoned, and the contents were allowed to remain unreduced—the wound being closed over them. The patient shortly died.

On dissecting the integuments from the lower part of the abdomen, the opened hernial tumor presented below the external ring in the usual manner, and was readily traced to its communication with the abdomen at the internal ring, but it also extended in a direction towards the spine of the ileum beyond the ring, and between the layers of the abdominal muscles. Thus the sac was found to be far more capacious than was suspected before death; and the circumstances attending its relations to the abdominal aperture explained the difficulty which had occurred during the operation. The hernial contents, when apparently reduced into the abdomen, had not been so in reality, but had been transposed from one part of the sac, and that the lowest, to the other or upper, which lay above and to the outside of the internal ring. No difficulty could arise in
such a case in respect to diagnosis of the existence of hernia; yet, to the operator, an embarrassment might ensue like to that which occurred in this; and its relation is of importance, as forewarning him of a probable though remote contingency, and preparing him, by a foreknowledge of it, with the means best suited to meet the difficulty.

These cases, even in the female, are unfrequent; they are still more so in the male, and, I believe, never occur in that sex, unless produced by means wholly independent of anatomical formation and development. They may, however, be produced by other causes; and the subject has an important bearing upon the application of trusses to the relief of the ordinary kinds of inguinal protrusions. From the manner in which a truss is usually applied, and from the sufficiency in the size of its pad, both the internal and external inguinal rings are guarded, and the more especially when the two are approximated by the descent of the former, as is common in old hernia. But in an incipient hernia, when the rings are in their normal position, or nearly so, a truss may be so applied as to guard the external ring and lower part of the inguinal canal only. In that case, the hernia is not prevented from protrusion through the internal ring; and its increase in size may continue, notwithstanding this imperfect use of the instrument. If such increase does take place, the truss has no other effect than to alter the course of the hernia by preventing its descent through the canal and external ring, and constraining it to take that direction which alone is open to it. That direction appears to be upward and outward; and thus the intermuscular hernia, as described above in the foregoing cases, is produced. To prevent such a form of hernia in a male, arising from the use of a truss, is an important desideratum, and appears easily attainable by its proper application. As the recurrence is the result of pressure of the pad upon the lower part of the canal and external ring, while the internal ring remains unguarded, there are two courses open for selection. The one course is to remove the pressure of the truss altogether, by which means the hernia will have an opportunity of descending in its usual course; the other is to guard the internal ring also, and to prevent protrusion from the abdomen altogether. Of the two, it need scarcely be observed, that the last is to be preferred. Although this is generally done, it is not always so; and it may serve a good purpose to show what may take place, and what has taken place, from inattention to this deficiency in the application of trusses. They should always be so applied as to guard the internal ring.

An illustration of the above came under my notice a short time since, in the case of a gentleman, about 50 years of age,
who first applied to me in consequence of some uneasy feelings which he experienced in the abdomen, and irregular action of the bowels, attended by occasional flatulence and nausea. He also complained of pain in the region of the caecum; in examining which and the adjacent part, it was found that he was the subject of hernia. This had descended partially into the scrotum; but he had been in the habit for some years of retaining it by means of a truss. A much larger tumor occupied the space between the crest of the ileum and the usual seat of the internal ring, which, by the communication of impulse, was ascertained to be connected with the lower tumor. Thus it was found that the entire hernial sac was of very considerable dimensions, and contained a large mass of viscera. Probably to this circumstance were referable the symptoms of intestinal derangement, which were the immediate cause of his application. It became, therefore, an object of primary importance in the treatment, that the contents should be replaced within the abdomen. In the attempt to accomplish the reduction, the lower tumor was readily made to disappear; but, as it did so, the upper tumor became more full and large. Attempts at reduction of the upper tumor in the upward direction, were wholly unavailing; but, when pressure was made upon it in a direction downwards in the course of the inguinal canal, while the other hand was kept upon its lower extremity, so as to prevent the contents from descending through the external ring, it was, by a little manipulation, partially returned into the cavity of the abdomen. Old adhesions of the contents either to each other or to the sac, appeared to be the obstacle to the reduction being complete. Sufficient, however, was accomplished to afford some relief to the patient, and the intestinal disturbance became less severe. Should strangulation occur in the case, the circumstances which complicate it are well calculated to try the skill of the most experienced surgeon who shall undertake an operation for its relief; all which complication, with all its present ills and prospective embarrassments, I think, might have been prevented by the proper use, in the right position, and at an early period, of an efficient truss.

Perpendicular fall from a height of 192 feet—Fracture of the thigh and patella, with severe concussion of the thoracic viscera—perfect recovery.—The following extraordinary case is recorded by Dr. Knox, Surgeon to the Strangford Dispensary, in the Dublin Med. Press, May 8th, 1850:—(Amer. Jour.)

"On the 8th of September, 1834, Alexander Boyd, of the coast guard service, under the command of the late Captain
Fracture of the Thigh and Patella. [September,

Gilbert, R. N., whilst patrolling on the cliffs which overhang the sea, in the vicinity of Kenbarwn-head, near Bally-castle, in the county Antrim, mistook his way, owing to the extreme darkness of the night, and fell over a precipice, rising sheer from the seamark, as I afterwards ascertained by measurement, to the height of 192 feet. In his descent he grazed slightly the face of the cliff at one point only, about 93 feet from the summit, and fell on a slip of grass land lying between the base of the cliff and the sea. Here he lay for some hours, until a little dog, the companion of his walks, gave the alarm by whining at the door of his cottage, and caused a search to be instituted along the coast. The circumstances of his almost miraculous escape attracted so much attention at the time, that the place where this extraordinary accident occurred was visited by great numbers of persons for many week afterwards.

When called to see him on the following day, I found that the femur had been fractured obliquely at the superior portion of the middle third, and the patella of the same side, longitudinally. Slight abrasion of the cuticle of the leg and the outer ankle were observed, and the thigh and knee were greatly swollen. He complained of severe pain at the upper part of the sternum, and in the course of the splenii, muscles, as well as of much dyspnœa, aggravated by deep inspiration. The pulse was 100, and the respirations 24 in the minute, the skin hot, the tongue white, and the bowels costive. His mind was apprehensive but unclouded, and no injury of the head was apparent.

As the injured limb was both very painful and much swollen, I at once detemined not to attempt immediate reduction of the fractures, but to trust to secondary coaptation or settling, after the inflammatory symptoms should have subsided, and contenting myself, in the meantime, with placing the limb in the position most easy for the patient, and supporting it by cushions properly adapted to prevent motion of the broken extremities of the femur. A cold spirituous lotion was directed to be applied with great regularity; the most perfect quiet and very low regimen were enjoined; a full dose of castor oil was administered; and on account of the injury of the chest, which obviously presented the chief source of danger, thirty ounces of blood were detracted from the arm.

Sept. 10th. The symptoms were little changed. An additional purgative was necessary, and calomel and antimony were prescribed, in small doses, three times a-day.

11th. The medicines have acted powerfully; the pain of the chest and difficulty of breathing are much abated; the swelling of the limb remains undiminished, but he complains of no pain in it except on motion; pulse 80 respiration 16.
12th. Griping and tenesmus having occurred, the mercury was suspended, and a draught, containing castor oil and laudanum, relieved the abdominal irritation. On the 15th the pectoral symptoms were completely removed, and the swelling and inflammation consequent on the fractures sufficiently abated to admit of the application of a laced cap to the knee, and of the necessary bandages and splints to the thigh. The limb, when the fracture was reduced, was apparently of the same length as the other. Regular action of the Bowels was promoted by the occasional use of aperients, and the patient was allowed a more generous regimen.

On the 22d, the apparatus having become somewhat disarranged, was cautiously removed, and the limb being found in its proper position, it was again carefully and firmly adjusted. The pulse 70, the bowels regular, and the appetite good. Animal food was now allowed.

On the 26th, considerable pain in the course of the thigh being complained of, the bandages were slackened a little, and an aperient administered. On the 5th of October, and again on the 13th, the splints were slightly re-adjusted, and the bandages tightened. On the following day, sharp pain at the site of the femoral fracture annoyed the patient considerably, but he received instant relief by the division of one or two turns of the bandage. On the 29th of October the entire apparatus was removed, when both fractures were found to be consolidated; the limb apparently unshortened, but with imperfect power of motion, the muscles appearing paralyzed by long pressure and want of use. The knee also was somewhat stiff, and painful on flexion being used. The repeated application of a stimulant embrocation was therefore directed, and careful passive motion of the affected joint, the entire limb being swathed in new flannel.

Nov. 2d. The patient was permitted to leave his bed, his health being excellent, and the power of using the injured limb gradually increasing. By the middle of the month he could move about with the aid of crutches; and on the 8th of December, exactly two months after the accident, the only symptom which remained was a degree of stiffness of the knee-joint, preventing the full use of the limb. This gradually abated, and in a short time he was enabled to rejoin the coast guard service, and to patrol as usual for several years afterwards. I have lost sight of him lately, but I believe he is still in the service.

The chief points of interest in the above cases are the successful result of secondary setting of the fracture, and the very extraordinary escape of the patient from immediate death, as I have
Fracture of the Thigh and Patella. [September,

never heard of a similar case nor should I have believed in the possibility of a fall, from a height of 200 feet, occurring without certainly fatal results. Once, indeed, in the harbor of Malta, I was an eye-witness of the fall of a seaman from the truck of a line of battle-ship, perhaps 176 feet; but in that case, the man fell in the water, having only glanced against the chains in his descent, by which, however, the os femoris was fractured in two places. He was, I believe, uninjured in other respects, as he swam until picked up, and rejoined his ship in a few weeks, after cure of his fractures in the Malta Naval Hospital.

The other point, which is of more practical importance, was the treatment of the fracture of the thigh by delaying the application of the permanent apparatus until the inflammatory symptoms had in a great measure subsided, applying only, in the first instance, such support, by means of position, folded sheets and cushions tied round the limb with sufficient firmness to prevent injury of the soft parts by displacement of the injured extremities of the bone. This mode of treating fractures I learned from Sir S. L. Hammick, now of London, when I was serving as assistant surgeon in the Royal Naval Hospital at Stonehouse, Plymouth, and observation of what I had an opportunity of seeing in his practice, and subsequently in my own, justifies me in forming a most favourable opinion of the plan advocated by that very distinguished surgeon in his truly 'Practical Remarks,' where the reader may find the comparative merits of primary and secondary fractures ably discussed. The frequent occurrence of shortening in oblique fractures of the femur, even when most carefully treated, is known to all surgeons, and it has even been stated on high authority, that this is inevitable; but a result so unfavourable has not occurred in the experience of the eminent surgeon alluded to, and the cases treated by him, under my observation, by secondary setting were perfectly successful. This very day, by a singular coincidence, I have had an opportunity of examining accurately a fracture treated by him, in the person of a pensioner of marines, which occurred about forty years ago.

The cure was most perfect, not the slightest difference being perceptible either in the dimensions or (as I am assured by the patient), in the sensations, or motive power of the affected side.

Without entering here into a discussion of the comparative merits of primary and a secondary setting of fractured bones, I shall content myself with stating that I have found the latter mode of treatment perfectly successful in several cases. But if only equally successful in the results with the plan of immediate reduction almost universally recommended, there
appear to be several reasons which entitle it to a preference, of which the risk of severe and dangerous inflammation is one of the principal, and the consequent necessity for removing the apparatus perhaps more than once. No doubt cases occur in which the immediate application of splints is indispensable, as on board ship in rough weather, or where the patient is furious from delirium or intoxication; but under favourable circumstances, I believe any surgeon, who shall judiciously try the mode of treatment here advocated, and which is very minutely described in the work alluded to, will find that it shall not disappoint his expectations. It may be said, however, as the swelling and inflammation were too far advanced, before the patient was seen, to admit of primary co-aptation of the fracture, that the case detailed is scarcely in point. The following instance, however, is: A strong muscular labourer was struck by the end of an enormous log of wood, which fractured the middle third of the os femoris obliquely. As the man was so circumstanced that I could have him closely under observation, I contented myself with flexing the thigh on the great trochanter, and flexing the leg to such an extent as rendered the position most easy to the feelings of the patient, and with taking such general measures as the nature of the case required, for preventing displacement of the bone, and moderating the inflammation. When this was abated about the tenth day, I placed the patient on his back, reduced the fracture accurately, and applied very firmly the necessary bandages and two splints along the inner and outer aspect of the thigh, sufficiently long to secure the heads of the bone. A third splint, but shorter, so as not to press on the patella, was placed in front. The whole apparatus was firmly secured by strong tapes, and beyond occasionally tightening, or slightly readjusting, nothing further was requisite.

The bone was perfectly consolidated by the ninth week, the callus having been thrown out rapidly and abundantly. In ten weeks the patient was permitted to move about with crutches, and he very rapidly regained the full power of the limb. There was no apparent shortening, nor the slightest halt perceptible. Now, I would not assert that an equally perfect consolidation might not have been affected in the ordinary mode of immediate setting, but a better one certainly could not, and if only attended with an equal degree of success as to the final result, the mode in question appears to have, as I have already stated, some important advantages. Where it shall be adopted, it appears to me that the starch bandaging of Seutin may be employed with much greater safety than when used immediately after the receipt of the injury."

Two cases of sloughing phagedæna of the face have recently presented themselves in this Infirmary at the same time; and since the best method of treating this affection is still sub judice, and knowing that all the old remedies are of little avail, two simultaneous cures through the influence of similiar agents cannot be but of interest, and even possess some weight in favour of the means employed.

The first is that of Anthony McDonnell, aged nine, admitted to the wards of this hospital on the 18th of last October. From the statements of the parents, he had been of robust health from infancy until about eighteen months ago, when he became the subject of some febrile action, but concerning the nature of which they could not particularly specify. Six weeks before the date of his admission, he was attacked with acute and continued pain in the left cheek, soon accompanied by a small dark discoloration, which had rapidly increased in size, notwithstanding the treatment of one or two medical men, until it had attained its present dimensions; the pinched physiognomy, and the usual attendant symptoms of this disease were now fully developed and on examination the dark-coloured slough was found to occupy the whole of the left side of the face, passing irregularly from a point just below the orbital surface of the superior maxillary bone, inward and downwards along the side of the nose, implicating half of the upper lip, to about half an inch below the angle of the mouth, and backwards and downwards over the substance of the masseter muscles the cartilages of the nose were intact; the immediate edges of the still living parts were deeply reddened, and to all appearances there was no tendency to the formation of a definite line to its progression. McDonnell was at once put on the best meat diet, ordered daily fifteen grains of chlorate of potash in divided doses, and four ounces of sherry wine; to have the edges of the slough touched all round with strong nitric acid and a linseed poultice repeated three times a day. Without entering into detail, the remainder of the treatment may be thus summarily stated; for four successive days the acid was freely reapplied, when rapid separation of the slough took place, and subsequently to its complete removal this potent agent was employed at two irregular intervals on a few suspicious points still remaining, so that altogether it was called into use on six different occasions. The fourth day of his admission he was attacked with diarrhœa, but it readily yielded to a compound of opium, catechu, and chalk
mixture. On the cessation of this complication, the chlorate was increased to a scruple, and the wine to six ounces daily; under these enlarged doses he continued gradually but steadily to improve in appetite and acquire strength, and was made an out-patient on the 3rd of December, or forty-sixth day of treatment. Some time before he left the hospital, it was very evident that a large portion of the superior maxilla would exfoliate, for the ulcerating line of separation was being formed, and bone loosened to an equal extent; and on the seventeenth day after going out, they had progressed so favourably, that evulsion of the parts was performed by the aid of a strong pair of forceps, two out of the four processes of this bone (the alveolar and the molar) coming away entire, with two of the milk teeth still firmly implanted in their sockets; since then the surrounding soft parts have been so busy in throwing out plastic organizable matter and contracting, that at the time I now write the disfigurement is not nearly so great as might have been expected, nor the breach so extensive that it may not be remedied at some future period.

The second case is that of Eliza Lomas, aged six who was admitted on the 22nd October, with an account from her parents that she had been extremely delicate from birth, and that she had suffered from the effects of the usual tribe of infantile diseases in a scrofulous constitution. The history of her present attack very closely resembled that of the boy above related; she had lately undergone some febrile affection; she had been ill a few weeks before presenting herself, and continued to get worse in spite of medical aid; acute and continuous pain preceded the formation of a slough; and she, too, was now greatly prostrated by the depressive powers of the disease. It did not appear, however, that the morbid process had made any very rapid local progression, for the measurement of the circumference of the dead portion did not exceed that of a wafer of the largest size, extending from a point corresponding to the alveolous of the first molar tooth, completely through the side of the cheek, and implicating, at the same time, more internally a small portion of the gum; the surrounding edges of the still living parts possessed a deep livid blush, and were found to be tender and somewhat painful.

Precisely similar treatment was put in practice in this case, too; at first fifteen grains of the chlorate, afterwards increased to twenty grains daily, and four ounces of wine, increased to six ounces, the best meat diet, and local application of nitric acid; the latter was used on three successive days before the coming away of the slough, and was esteemed necessary only once afterwards. By the aid of these medicaments she
rapidly improved in health, great contraction of the sides of the aperture took place, numerous healthy granulations were thrown out, and by subsequently uniting with others from the implicated portion of gum, this gap, though at first large enough to admit of the middle finger, was completely closed, and she went out of the hospital, on the 10th of December, with a slightly sunken and puckered cheek, but in all other respects better than she had every been before in her life.

On the fourteenth day of her admission I noticed that about three-quarters of an inch in front of, and somewhat above, the original solution of texture, a small, irregularly circular slough, three lines in diameter, had developed itself; and anticipating its tendency, gently tore away the surface, to ascertain the extent; already it had been penetrated to a greater depth than the thickness of the cheek, but fortunately, on account of the very oblique direction, without yet implicating any portion of the mucous membrane. Its progress was at once arrested by the strong acid, a clean surface was obtained in two days, kindly granulations were thrown out, and it soon healed, without ever opening into the cavity of the mouth.

Observations.—Sloughing phagedæna of the face, in children, was recognised by the older writers on medicine; but the late Mr. Pearson was the first to bring the subject prominently before the profession, in a short essay, entitled "Canker of the Mouth," and appended to his "First Principles of Surgery," published in 1788. Since his time many men have thought it worthy of their attention; and though considerable additions have been made to the pathology, still it must be confessed that until very lately no advance had taken place in the requisite therapeutics. Contenting myself, however, by referring those readers who may wish to know more particularly concerning the disease to the writings of Mr. Pearson, Dr. H. Hunt, Dr. Symonds, Dr. Cuming, and Rokitansky, (Sydenham edition,) I will proceed to notice a few of the peculiarities and points of interest in the cases just related.

1st. The respective ages of these little patients, or at least the age of one of them, was considerably above the average of those affected with this disease. Mr. Pearson makes the date of liability vary from eighteen months to six or seven years, and Dr. Symonds from two to five years of age; but one of these instances is a girl of six, and the other a boy of nine, being, in the latter two years beyond the maximum of Mr. Pearson, and four beyond that of Dr. Symonds.

2nd. In each case the formation of the dark slough was preceded by violent and long-continued suffering, differing, in this respect, with all the authorities I have been able to consult, for
by them is generally stated that very little pain accompanies either the development or the progression; but it would appear from these instances, that sometimes, at least, symptoms of acute inflammatory phagedæna may be present. Dr. Hall believes that this affection is subject to the same causes of origin as phagedæna of any other mucous part at an early age; and truly there does not appear to be sufficient ground for supposing that it possesses any specific power of action, or that it is different to sloughing phagedæna, affecting any part of the body at a more advanced age, for in one, as in the other, disintegrating granules, just before separation, impart their attributes by continuity of texture, to other portions of the surrounding tissue, which then immediately take on similar virulence of action and tendency to death; it will be found, too, that each possesses many like peculiarities, and when subservient to the power of a remedy, will give way to that endowed with similar virtues.

3rd. In the course of the disease in the little girl, it was a point of considerable interest that on the 13th day of treatment, a small, secondary slough should have formed, like, to all appearances, the nature of the primary one yet not originating in the mucous membrane, or implicating it in the smallest degree, but in the skin, most clearly passing from the surface to within. Calling to mind, at the time it was observed that many physicians believed in the contagiousness of a discharge from such sores, I carefully examined all the edges of ulceration, but found that, contrary to their being the appearance of any suspicious points, the whole surface had assumed a most kindly aspect, and taking this in conjunction with the facts, that the freshly diseased spot was situated above and in front of the original slough, and that the parts and face were cleansed at least once a day with warm milk-and-water, the evidence seemed sufficiently strong to show that the local disease may occasionally begin, de novo, in the skin, as advocated by Dr. M. Hall, and that it does not always, as most authors have stated, commence in the mucous membrane or gums. It is true that the precise point of origin of any local departure from health is not a subject for speculation, but a matter of fact, after due observation; still the known correspondence in structure between the skin and mucous membrane, and their intimate sympathies in other affections, would lead us to anticipate that a disease might at one time originate in the cuticular, and at another in the mucous tissue, although known by experience to affect after a directly reverse fashion, in the majority of instances.

4th The termination of each case possesses its own peculiar interest; that of the lad, on account of the intensity of the disease a youthful constitution may be made to support, and the
strong efforts made by nature to close a breach of surface so extensive; that of the girl, on account of the very fortunate recovery that may sometimes be expected to ensue, notwithstanding a delicate conformation of the body, and a subjection to continued sickness from birth. Both cures will be rendered more complete at some future period, when by a slight Taliacotian operation, the breach of substance still existing in the first shall have been filled up, and when, in the second, the band of adhesion uniting the cheek, to the gum shall have been divided, and the side of the face once more released with a fair chance of regaining its former position.

5th. The profession is indebted to Dr. H. Hunt for the introduction of chlorate of potash as a remedy for cancrum oris; but since he tended an account of its virtues in 1843 many persons have thought proper to doubt its efficacy, and others have not hesitated to deny it altogether; still, though it may be quite true that the method of its action upon the organism is doubtful, it is only an accumulation of the evidence of experience that can establish or deny its merits as a medicament. When first made use of, it was thought to produce a beneficial influence by the diffusion of some of its contained oxygen; but as soon as it was objected that it might be detected unchanged in the urine of persons taking it, many thought this fact quite sufficient to upset the chemico-physiological theory of its action, without remembering that it had not been shown that the same amount of the salt might be collected from the urine as was administered by the mouth, and consequently not proved that a portion at least might not be acted upon and decomposed. As far, however, as the experience of five cases will enable me to judge, I should not think it advisable to trust to any constitutional treatment alone, any more than in that of sloughing phagedena in a different part of the body. It is essential that the portions of tissue which have taken on diseased action should be thoroughly destroyed,—whether by the nitric acid, other potential agent, or the actual cautery itself, after the fashion recommended by Mr. Obré appears to be quite immaterial; neither, on the other hand, should I like to trust the local treatment alone, for the gradual death of tissue is merely the consequence of a constitutional disease; and though layer after layer of texture might be destroyed, still the root of the evil would remain untouched. Both methods should be put in practice at the same time; and I am sanguine enough to think that the person who will put his trust in them will find this disease, by their combination, as much under the influence of treatment as most other affections to which our bodies are liable.
6th. In applying the nitric acid, it is a matter of some importance to instruct the little patient to inspire fully previous to its application, that the lungs may be filled with air; and thus guarded in some degree against the difficulty or even danger that might result from the inhalation of nitrous fumes; and in the course of treatment it will be found of great advantage to separate carefully every slough as soon as formed, using, if necessary, even some little violence for the attainment of this object, on account of thus obviating to a considerable extent the great contamination of the air of inspiration.

Lastly. I would beg to state that I am indebted to the artistic skill of my esteemed friend, Mr. Swanwick, for the accompanying representations of the patients in their present condition, who has very kindly made for me two excellent chalk drawings of them.

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The author's remarks, it is stated at the commencement of this paper, are to be regarded as applying especially to Vienna, although it is believed that similar causes are brought into operation in other countries, and might as effectively be combated.

The facts in which they originated may be briefly stated. It appears that there are two divisions in the Vienna Lying-in Hospital, of which the first is open for the instruction of medical men and midwives; the second, for that of midwives exclusively. The general arrangements are similar in both divisions, but the wards of the second are neither so large nor so airy as those of the first. Nevertheless, it was found that the mortality in the first division was very much the greater, and sometimes reached a fearful amount. Thus the average monthly number of deliveries being 275 in each division, the ordinary number of deaths in the first was 30 per month, or one in 9.16 deliveries, which occasionally rose to 70 per month, or rather more than one in 4 deliveries; while, in the second division, the ordinary monthly mortality was about 8, or one death in 34.37 deliveries, which sunk occasionally to 3, or to one death in 91.66 deliveries. In one particular year, indeed, out of some 3000 cases delivered, about 500 died in the first division; while in the second division, out of the same numbers delivered, the deaths frequently did not exceed 40.

The frightful mortality in the first division, as compared with the second division, became at last so notorious, that many fe-
males refused to become patients in the former; and public opinion compelled the Austrian government to make it a subject of inquiry. The commission appointed for that purpose came to the conclusion, that the prevalence of the fever was due to the excess of students in attendance, and the number of these was reduced from forty to about thirty, but without advantage. A presumption arose in the minds of some, that the fever was excited, in the first instance, by the rough manipulations of men midwives as compared with those of women; but further consideration showed this opinion to be groundless.

Under the heads of contagion and infection various arguments are adduced, to show that the excessive mortality at Vienna could not be referred to the introduction of typhus fever; nor to the conveyance of a contaminating poison from one patient to another by the person or clothes of the attendants, nor to its more direct communication from the sick to the unaffected. The general fact of the occasional origin of puerperal fever in some matter or miasm, communicated by those who are attending upon patients laboring under other diseases, or under puerperal fever itself, is admitted by the author, since he says:

"That the contact of fomites, the direct or indirect communication with persons affected with puerperal fever; that some influence, carried either by the patient herself or her attendants, from other contagious diseases, such as erysipelas, typhus, and other low fevers, has in many cases, given rise to puerperal fever among lying-in patients, is a fact that admits of no doubt."

He must therefore be understood as maintaining only that, of the peculiar fever at Vienna, and of that of some similar institutions at Prague and Paris, some other explanation must be sought. His arguments seem indeed to show that the fever under discussion having the origin presently to be assigned to it, is less capable of conveyance through infection than other forms of the same malady. We shall give here the conclusions arrived at regarding the causes of this particular fever; the beneficial results that followed the adoption of precautions based upon them; some particulars relating to the symptoms and post-mortem appearances; and the general rules which should guide accoucheurs under all circumstances, as derived from the lamentable facts here detailed. The author thinks himself justified in concluding that—

1. The puerperal fever of Vienna may be looked upon as an endemic fever.

2. That it is produced by the direct application of poisonous cadaveric matters, introduced by the hands of the male obstetricians in attendance. (The midwives made no post-mortem
examinations or dissections, and studied anatomy by means of a
lay figure.)
3. That the cadaveric matters derived from the bodies of per-
sons dead of typhus, erysipelas, puerperal or other low fevers,
are peculiarly dangerous; but that there is no evidence to show
that ordinary cadaveric matters may not produce it.
4. That it does not appear to be either contagious or infec-
tious.

Dr. Semelweiss, acting on these conclusions, recommended
all students frequenting the division not to handle dead matter,
or if they did so, he forbid them to make an examination of
lying-in women till the following day. He directed all
students who attended the practice of the division to wash their
hands in a solution of chlorine, prior to and after every examina-
tion made on the living subject. The result of these precau-
tionary measures, was, that the number of deaths at once fell to seven
per month, or to the usual average of the second division.

In this malady the feverish symptoms usually occurred on
the second or third day after labour, but in some instances not
till the seventh or fourteenth day. The fatal result was gener-
ally deferred to the fourth or fifth day after the seizure, but
sometimes occurred within twenty-four hours. A diarrhoea
generally preceded the attack; sometimes, but rarely, the pa-
tient was costive. Then followed languor, weakness, and
rigors, a pulse from 120 to 130 in a minute, sometimes 160,
and very weak; anxious countenance, pain about the uterus,
heat, dry tongue, and thirst followed. The lochia and milk
were unaltered in quantity and appearance; the intellect was
generally clear to the last. Large violet maculae sometimes
occurred on the extremities. The more marked local symp-
toms were those of peritonitis, but the pain disappeared a short
time before death.

After death there were signs of arachnitis in a slight degree,
occasionally endocarditis, very generally pericarditis. Extensive
peritonitis with sero-purulent effusion. The uterus was
much enlarged, softened, tearing easily, with pus in the veins, es-
pecially near the Fallopian tubes. The bodies underwent speedy
decomposition; the blood was generally liquid and very dark.

A postscript informs us, that whereas in 1846 there were
459 deaths, in 1847 the number fell to 176, and in 1848, after
the precautionary measures were fully carried out, it sunk to
45 in about 3360 deliveries in each year.

The precautions, adopted for all times and climates, that
flow from this melancholy history, are that—

"1. Accoucheurs should, as much as possible, avoid making
autopsies, and all contact with cadaveric matter.
"They should never attend any woman in labour, in clothes which may possibly have been infected; and, if compelled to handle cadaveric matters, or poisonous secretions of living persons, should effectually disinfect the hand by means of chlorine water before entering the lying-in bed-chamber."

We conceive that Dr. Routh is eminently entitled to the thanks of the profession and of the public, for the lucid and able manner in which he has brought forward the particulars of this melancholy and very instructive history.

Report of the Committee appointed to examine into the condition of the mucous membrane of the intestinal canal in persons dying of Cholera.—(Trans. Philadelphia College of Physicians.)

Science is positive only when its facts are positive. A subject, the phenomena of which are numerous and complex, can be understood only when each of its phenomena or facts have been analyzed and positively ascertained.

In Epidemic Cholera, the most prominent and constant phenomena, are purging and vomiting: and in ninety or more, of one hundred cases, these phenomena appear to induce the condition that usually terminates fatally. It is therefore an important object, in determining the phenomena of Cholera, to ascertain whether any, and if any, what constant anatomical alterations can be detected in the intestinal canal of cholera patients who have succumbed under the disease.

The College, with the view to obtain, as far as possible, accurate information on this single question, appointed the undersigned, at the meeting held on the 19th day of June last, a committee to investigate this subject.

The Committee having attended to this duty, submit the following report:—

The ordinary autopsical examinations, heretofore practised, have failed to yield any satisfactory information, and are nearly useless for the purposes of science.

Extensive structural lesions may exist, that cannot be seen, or very imperfectly discerned by the unaided sight, and without proper preparation.

It was determined by the Committee that the intestines, before submitted to examination, should be finely injected, and subsequently inspected with a microscope.

This task was undertaken for the committee, by Dr. John Neil, Demonstrator of Anatomy in the University of Pennsylvania. The admirable manner in which he has performed
this duty, can be judged of by the beautiful preparations now on the table, which he has presented to the College for its museum. The injections are made with turpentine colored with vermillion. It was found by Dr. Neil, that when he employed size, it did not penetrate well, and numbers of capillaries were not filled; the same result occurred when Canada Balsam was used. It led, at first, to the supposition that the capillaries were destroyed by the disease.

The Committee, confining themselves strictly to the single object for which they were appointed, report the following facts as the result of their investigation.

1st. In the recent subject, the peritoneal coat, like all the serous membranes, was in all, remarkably dry. The lubricating serosity is deficient in the serous membranes.

2d. The epithelial layer of the intestinal mucous membrane, was, in all the specimens, either entirely removed, or was detached, adhering loosely as a pulpy layer, mixed with mucous, or an albuminoid substance.

3d. Peyerian Glands. Peyer's Glands were developed to a greater or less extent in all the cases examined.

4th. Solitary Glands. These were also developed, and contained, in the recent subject, a minute quantity of white substance. These enlarged solitary glands have the appearance designated by Serres and Nonat, as Psorenterie.

The villi covering the glands of Peyer, and the solitary glands, present the same appearances as in other parts of the same intestine.

5th. Villi. They are denuded of the epithelial covering, but are unchanged in other respects.

6th. Capillary Vessels. These are entire, and manifest no departure from their normal state. The appearances of the capillaries of a cholera intestine, are identical with those of the healthy mucous membrane when the epithelium has been removed. In the natural state, the epithelium, from its thickness, conceals the injected capillaries.

In no instance was a vesicular eruption observed. In some of the dry specimens, there is an appearance that might be mistaken for it, but it is an emphysematous state, resulting from commencing putrefaction.

The foregoing facts are derived from the examination of twenty-five subjects.

Samuel Jackson, M. D.
John Neil, M. D.
Henry H. Smith, M. D.
William Pepper, M. D.

In noticing the communication of Dr. Pitman in the March number of your Journal, in relation to the prevalence of Jaundice in an epidemic form in the vicinity of Rocky Mount, N. C., you say, "we apprehend, however, that the cases observed by Dr. Pitman, and reported as jaundice, were examples of bilious remittent fever, &c." If this decision is based upon the opinion that jaundice never prevails epidemically, it is probably erroneous. A part of the cases at least would seem, from the date of the correspondence, to have occurred in mid-winter, when it is not probable there was any bilious remittent fever in the vicinity of Rocky Mount, to be confounded with it; and I shall proceed to show that jaundice has occurred in an epidemic form at other times and places, although, I believe there are but few instances to be found on record.

Mr. Samuel Cooper, in a note to the article "icterus," in Good's Study of Medicine, says, "the disease (jaundice) appears to have been epidemic at Cronstadt in 1784 and 1785, and at Geneva in 1814. In the latter city, it occurred after the hot weather in summer, being in some cases combined with bilious fever; in others, not associated with any manifest disorder."

Dr. James C. Harris, in the Western Jour. Med. and Surg., for July, 1848, has described an epidemic jaundice as occurring at and in the neighborhood of Wetumpka, Ala.

Jaundice occurred in an epidemic form in this place and the vicinity in the summer and fall of 1839. The first case in the community was accompanied by febrile excitement of a high grade, and was pronounced by a practitioner not very extensively read, to be a case of yellow fever!

A large number of cases occurred subsequently during August, September and October. A few were accompanied by febrile symptoms, but much the largest number were free from them; and there was no case except the first, and perhaps one other, that could be taken, or mistaken for bilious remittent fever. The disease confined itself almost exclusively to adult males. There were a few females affected, but no children. Three physicians out of five in the village had the disease.

The disease came on very gradually and was characterized by languor, loss of appetite, a bitter taste in the mouth, furred tongue, sense of weight at the epigastrium, yellow skin and
conjunctivae; urine a deep color, staining the linen, and constipation of the bowels, with clay-colored stools. A few complained of some fullness or pain in the head. In one case, there was great irritability of the stomach and vomiting, the dejections consisting of the articles swallowed, mixed with the secretions of the stomach, but without any bilious matter. There was no case of death, and many of the persons who had it, were able to attend to their ordinary business most of the time.

In a few instances the patient had to keep his room, and perhaps his bed for a few days. The greatest complaint was of a feeling of excessive lethargy; a disgust for food, and the sense of sinking or weight at the epigastrum. The loathing of food and bitter taste were frequently compared to that produced by measles; and it was a common remark with patients that they had "never had anything to make them feel so mean."

The treatment was various and all modes were attended with about the same success, as there seemed to be a natural tendency in the disease to terminate in from about ten days to two weeks or a little more. The first case that came under my charge was in a young man twenty three years old. I undertook to vomit him for the purpose of arousing his liver. Tartar emetic was administered in divided portions until he had taken six grains. It produced great nausea and distress with but slight vomiting. No bile ejected. His pulse sunk to 45 beats in the minute; he became deathly sick and the tartar emetic was stopped. A full dose of blue pill was given followed by rhubarb, and subsequently by two ounces of castor oil before alcaline evacuations could be procured. The stools were of an ashy color and small, without the least appearance of bilious matter.

Calomel was next exhibited pretty freely without any better success with the liver. After the first few days the treatment was rather expectant than otherwise, and the patient recovered in about the ordinary time.

I succeeded in vomiting another patient freely after giving a considerable quantity of ipecac and tartar emetic, and found some slight traces of bile after severe straining.

Another patient, in taking calomel to "act on his liver," was severely salivated. The ptyalism did not appear to affect the functions of the liver, or modify the disease in any way. The fact is, that until the disease began to subside of itself, or from other remedies, the boasted "Sampson" of the materia medica seemed to have lost all its influence over its peculiar organ. The best treatment finally appeared to be the use of occasional purgatives with the regular exhibition for some days of such
tonics as quinine, barks, and an infusion or tincture of the bark of the wild cherry. The latter was the popular remedy, and was all that several persons used.

Epidemic jaundice is no doubt produced by the same cause that gives rise to bilious remittent fever; its influence being in some manner modified so as to give different results under different circumstances.

It was at Geneva, found occurring “after the hot weather in summer,” and “in some cases combined with bilious fever.” Dr. Harris describes it as occurring in company with a form of fever that was evidently bilious remittent fever. Dr. Pitman finds some of his cases “complicated with intermittent fever;” while it occurred with us in the season of our autumnal fevers, appearing for the time to take the place of them. We had bilious remittents during the latter part of the time, and after the jaundice prevailed.

As epidemic jaundice has seldom if ever proved fatal; there have perhaps been few if any opportunities of determining by post mortem examinations the precise condition of the liver, the organ at fault in the disease. In searching for its immediate cause in such cases as those presented by epidemics, we may set aside calculi, obliteration of the biliary ducts, organic diseases of the liver, pressure from tumors and enlarged viscera—spasm of the gall ducts; inflammation of the liver, and inflammation of the duodenum. It has been thought to be produced sometimes by a closure of the choledochus duct by a viscid mucous. This we may dismiss also, as emetics and cathartics would certainly dislodge such an accumulation without difficulty; and these are not found to cure epidemic jaundice.

If we agree with Darwin, Chevreul and Mayo, that the bile is formed in the blood and merely separated by the liver, we might suppose the morbid agent had simply caused a cessation of the functions of the liver, leaving the bile in the blood; and therefore that the yellow skin and secretions resulted from a suppression of bile. If this hypothesis were true, then every individual whose liver ceased to secrete, even temporarily, would become jaundiced, which we have reason to believe is not the case. Our skins would be constantly becoming yellower or clearer as the formative power or separating power preponderated. It is very certain that in many diseases the functions of the liver are almost if not entirely arrested for several days, as are those of the salivary glands, skin, &c., and that without inducing jaundice. Further, all analogy teaches us that the bile is not formed in the blood but by the action of the liver; while chemical analysis has failed to detect it in that fluid.
The true pathology of epidemic jaundice will perhaps be found in the increased activity of the absorbents of the liver produced by the action of the morbific agent, resulting in the absorption of the biliverdin or coloring principle, a portion of the blinn or bitter principle, and the main part of the water, (which amounts near to eighty-five parts in the hundred,) leaving the balance of the constituents in the ducts and gall bladder in a state of inspissation. It is not improbable that this absorption takes place mainly in the larger ducts and gall bladder.

It has been urged against the theory of absorption that the absorbents would not take up such an irritating fluid as the bile. But it does not appear from observation that the absorbents are less disposed to take up irritating fluids than bland ones; and moreover, the absorbents would be as apt to tolerate the bile, as the delicate endangium, upon the hypothesis of its existence in the blood vessels ready formed. Besides, it remains to be proved that the bitter and coloring principles in the state of solution in which they are supposed to be taken up, are peculiarly irritating.

The coloring principle of the bile just taken into the blood constitutes foreign or effete matter and is thrown off by the kidneys and cutaneous emunctories, or lodged in the cutis vera—the delicate tissues of the conjunctiva, and the mucous membranes. The loss of appetite, impaired digestion and constipation, are readily accounted for by the absence of bile from the alimentary canal.

PART III.

Monthly Periscope.

The Treatment of Epilepsy. —Journ. of Insanity.)—Dr. Cheneau has presented to the Academy of Sciences, Paris, a memoir on the treatment of epilepsy, which is well worthy of perusal. He desires to prove that the disease is curable by medicine, resting his principal mode of arresting its progress upon the judicious employment of digitals. The cases that have proved the most inveterate have yielded to a perseverance in the use of this remedy for a period of six or eight months. He has submitted six instances to the Academy, in which he has been successful; the first occurred at the Bicetre, under the care of Dr. Voisin. A young man, aged twenty, had been epileptic, it is supposed from fright, from his fourteenth year; two months treatment restored him to health. The second was one in which the disease, produced at the age of thirteen, by fright, had lasted till the individual had attained his forty-second year. The treatment commenced the 20th of April, 1847, and after the 16th of June in the
same year he had no attacks, which before had appeared, it is true, at only very long intervals; as many as six years having at one time elapsed without any access of paroxism. The third case is certainly one as singular as any that has been registered upon the rolls of medical science. A young lady, thirteen and a half years old, had been subject for several years, to the disease, which had at length brought on idiocy and paralysis of half the body; the paroxysms were not very frequent, but were of great violence, frightening the persons who nursed her, the countenance wearing a purple and almost a black hue, which sometimes lasted twelve hours after the fit had ceased; the hemiplegia, which was of the right side, prevented the movement of the limbs, and partially affected sensation. The treatment was commenced on the 4th of July, 1846, and by the month of January in the following year, the epileptic fits altogether ceased. A year has elapsed since the young lady has been able to go on with her education, and she is also able to run in the garden and to amuse herself with gymnastic exercises. The fourth notice is that of a young girl of ten years of age, upon whom epilepsy supervened after fright; it had lasted two years, but soon yielded to the usual remedy of Dr. Cheneau. The fifth case was that of a patient in the Bicetre; he was, when placed under the treatment, sixteen years of age, and had been afflicted by the malady since he was five years old. At first, the paroxysms were but slight; he suddenly turned himself mechanically round any object immediately in his neighbourhood; this lasted about a minute. As the disease advanced, he had convulsions, and the fits became very frequent. The remedies were commenced on the 2d of October, 1847, and in January, in the following year, was his last attack. Since that time his health has become perfectly established. The last case carries with it the same interest as the preceding ones. A boy, of ten years of age, after having been for three years subject to frequent fits, once as many as fourteen in twenty-four hours, was subjected to the use of the digitalis, and at the end of two months was an instance of the excellence of the system pursued by Dr. Cheneau. The essay is well written, and certainly demonstrates that digitalis, properly combined, has cured epilepsy, even when complicated with paralysis and idiotism; that the cure has not been confined to youth, but has been decided at an advanced age, and that the time occupied has not been of great duration. An incidental subject of discussion has been the subject of the sudden paleness of the face, which has been noted down by the nosologists as one of the symptoms of epilepsy. One of the characteristics, as given by Georget, in the "Dictionairy de Medicine," is "extreme pallor of the face, suddenly coming on towards the end of the fit, succeeding to a redness more or less intense which previously existed." In the hospital of the Bicetre, one hundred and twenty fits have been watched with the most scrutinizing care, and this state has never once presented itself; on the contrary, the redness came on during the paroxysm, continued throughout the convulsions, and often lasted for some time afterwards. On no one occasion was the sudden paleness observed.
M. Delasiauve, one of the physicians to the Bicetre, is investigating with great attention the resources which we possess for the cure of epilepsy; his observations on the employment of sedatives are of considerable value. To valerian he gives the first place, though he does not speak of it quite in as sanguine language as did Tissot; a decoction of valerian given in doses of two wine glasses full, morning and evening, have produced a radical cure, but the medicine requires to be persevered in for a considerable length of time, otherwise it is of little avail; assafetida decidedly moderates the violence of the access, but it does not seem to produce the same permanent good effect. The hydrocyanate of iron is found in some instances very beneficial; belladonna and digitalis are each serviceable, but Pluvrey of Lille prefers a combination of the two. The root of artemisia is occasionally useful; of liquid ammonia, according to the formula prepared by Martinet, he has some good reason to speak, and will shortly give the results of his experience; camphor is found in those cases where the reproductive system is in a high state of excitement, as not unusually occurs in epileptics, to be of remarkable service; zinc, musk, castor, ambergris, have but little curative power; preparations of copper are to be but little confided in; nitrate of silver has lost the high character it once obtained; sulphate of quinine has also fallen into disrepute. He enters very minutely into the subject of the diet and exercise of the patient, preferring vegetable to animal food. It is to be regretted that the series of papers which this observant practitioner had prepared for the press are for the present suspended, for want of that encouragement which would have been at another period given to inquiries of such deep moment.

On the value of Lemon Juice in Rheumatism. By Dr. Owen Rees. (Ranking's Abstract.)—Dr. Rees first called attention to this mode of treating rheumatism in a paper published in one of the weekly periodicals; he has since put forth a pamphlet, in which he has narrated eight cases illustrative of the practice.

The form of rheumatic disease in which the greatest benefit is derived, is acute rheumatism and rheumatic gout. In pure gout, with high inflammatory symptoms, more advantage has been obtained than in the chronic forms of the disease.

In doses of half an ounce to an ounce thrice daily, the lemon-juice appears to exert a marked sedative effect on the circulation; in one case, the pulse, which was 120, and full, was after one day's treatment reduced to 75, and rendered at the same time smaller; in another case, the pulse, which was 110 when the lemon-juice was first given, was in two days reduced to 100, and in four days to 74. If we can rely on results obtained in one experiment, this action is manifested also in the healthy body. A clinical clerk took one ounce of the juice three times a day for three days, and carefully noted his pulse, which was naturally full, and 75 in the minute. After five doses the pulse became much weaker and more compressible, and numbered 70 in the minute; conditions accompanied by a feeling of general depres-
sion. On the third day the pulse became as low as 66, and was very small and compressible. The urine was always acid, and also natural in quantity till the third day, when it increased somewhat; the specific gravity was then 1.017, and there was a deficiency of lithic acid.

In the cases of rheumatism related by Dr. Rees, the urine was never rendered alkaline by the use of the lemon-juice; and in one case, in which the urine was alkaline before treatment, it became acid after the juice had been employed. We think it premature to speculate on the modus operandi of the drug, until its utility shall have been confirmed by more extended experience, and before we are in possession of more accurate knowledge as to its physiological action, more especially in reference to its effects on the urine, and the quantity of solids contained in that secretion.

Of the advantages of this method, we can speak from personal experience; and it has been confirmed by other observers, as will appear from the subsequent article.

Since the announcement of the value of lemon-juice in rheumatic affections by Dr. Rees (mentioned above), a paper illustrating the practice, was presented to the Medical Society of London by Mr. Middleton, upon which Dr. Golding Bird remarked as follows:

Now, in rheumatism, how were we to get rid of this morbid matter in the blood? Opium would remove it to some extent; colchicum would remove it. But it was taking a more common-sense view of the subject to employ some remedy which would eliminate the morbid matter from the circulation at once, by carrying it off by the urine. How, then, were we to effect this? Why, in acute rheumatism, by the administration of cream of tartar, citrate of potash, lemon-juice, or carbonate of soda. There was little difference between the action of these neutral salts; but lemon-juice, which was the super-citrate of potash, was more quickly absorbed into the blood, and consequently more active in effecting a cure. He had, however, in his own practice, been in the habit of employing the acetate of potash in these cases. This salt, with a mixture of sugar, water, and essence of lemon, acted with marvellous rapidity. In addition to this, given every four hours, he administered five grains of the soap pill, with opium, night and morning; for this not only relieved pain, but prevented the other remedy being carried off by the bowels. These, with the vapour-bath, constituted his treatment of rheumatism, and the result had been always successful. Soda and lemon-juice equally produced an alkaline condition of the blood, but he preferred the acetate of potash, as it was not liable to be neutralised by the presence of acid in the stomach. In respect to the treatment of ague, he never began at once with an anti-periodic. He always disgorge the liver by the employment of mild mercurials, and then some quinine. He mentioned one case, however, in which the quinine failed; he then gave the acetate of potash, and the case was cured. By these remedies we immediately altered the character of the blood, and cured the disease—a much more practical and philosophical mode of proceeding than that of treating disease according to name.
Physiological Effects of Oil of Turpentine.—Dr. Thos. Smith, in an interesting article on the Therapeutic Uses of Terebinthinate Medicines, in the London Journal of Medicine (April, 1850), gives the following account of the physiological action of turpentine.—[Amer. Jour. Medical Sciences.]

“Turpentine, when taken internally, exerts a peculiar action on the mucous surfaces, and the tissues superimposed upon them: it increases the peristaltic motion of the bowels, inducing purgation, and, in very large doses, hypercatharsis; it promotes the flow of urine, impregnating it with a violet odour; and, if its action be speedily directed to the kidneys, may produce strangury and bloody micturition. It determines to the skin, producing copious and free diaphoresis, sometimes attended with an itchy eruption. It also taints the pulmonary exhalation with its characteristic smell. A large dose has been taken internally, and failed to produce action of the bowels or kidneys; the vapour of the turpentine has then been discharged through the skin and pulmonary organs; this was the case with the experiment that Dr. Copland instituted upon himself. I once gave half an ounce to a boy of sixteen years of age, which occasioned no other unpleasant symptoms than an increase of the respiratory movements, and acceleration of the circulation, with a tendency to somnolency, followed by a profuse discharge from the urinary organs. The breath and perspiration were tainted with a turpentine odour for upwards of a week; the bowels remained inactive until he had taken eight ounces of the compound infusion of senna, with ten grains of calomel; the evacuations, when passed, were extremely fetid, black and slimy, but giving off no smell of turpentine. Hertwig injected two drachms into the veins of a horse; trembling, reeling, with inclination to pass stools, and frequent micturition ensued. Fever and bronchitis were set up, and the animal died in nine days. Schubert found that two drachms, given to a dog, caused tetanus and death in three minutes. I once saw half a drachm administered to a young cat: the poor creature mewed piteously, was extremely restless for several hours, and had constant micturition, unaccompanied with diarrhœa; after some hours it fell into a profound lethargy, from which it awoke perfectly well; its eyes remained injected for several days.

“Turpentine seems peculiarly destructive to vegetable existence. Small insects are speedily destroyed by it; indeed, no other drug appears to exert so fatal an influence over the majority of parasites which infest animal and vegetable life.

“When taken internally, it has been detected in the various secretions of the human body. Todd and Johnson have met with it in the kidneys of a patient who died from hemorrhage; it has also been detected in the chyle of a dog and horse, to which it had previously been administered, by Tiedemann and Gmelin.

Injections of Nitrate of Silver in Dysentery. By J. W. Richardson, M. D., of Rutherford Co., Tenn. (Transac. Med. Society of Tenn.)—Dr. Richardson said that he wished to direct the attention of
the Society to the use of injections of nitrate of silver in malignant cases of dysentery. He had first used it in Sept. 1848. The patient was a delicate female, mother of several children, who had been laboring under a severe form of dysentery for five or six days, and who had been well treated in the usual manner by an intelligent physician. All the usual remedies having failed to afford any relief, Dr. R. said that on his second visit to the patient, whilst thinking of the case, and having witnessed the unsuccessful use of many remedies, the inflammation and ulceration of the mucous surface of the large bowels, characteristic of dysentery, suggested the nitrate of silver as the very remedy to relieve them. Upon his arrival, he found the patient worse than she was the day before. The discharges were very frequent, consisting of large quantities of dark, gangrenous looking mucus, and more offensive than any he had ever smelled. The woman was nearly pulseless—every discharge produced the most deadly sickness, and she could not be turned on the bed without approaching syncope. Dr. R. advised the nitrate of silver, an injection of which was prepared about 15 grs. to 4 ounces of water, by the attending physician, and thrown up the rectum. This remained some six hours before it was thrown off, and the bowels were quieted until the next morning, when, as there seemed to be a tendency to a return of the dysenteric symptoms, the remedy was repeated. The disease was arrested immediately, and the patient recovered. Dr. R. said the result of this case, and the speedy and effectual relief afforded by the nitrate of silver, filled him with astonishment and pleasure:—astonishment, because he had never before thought of the remedy in intractable cases of dysentery, when he had so often witnessed its remedial virtues in inflammations and ulcers of various mucous surfaces; and pleasure, because he thought that he had made a grand and important discovery! But he said, when reading Braithwaite’s Retrospect a few evenings afterwards, he found that the remedy had been used in Europe in similar cases, before he had ever thought of it. See Braithwaite’s Retrospect, part 16, p. 156. c. 7, where you will find some valuable facts recorded in favor of the use of nitrate of silver, not only in dysentery, but also in the troublesome, frequent and painful diarrhea of typhoid fevers, and in the protracted diarrhea of young children. He thought the remedy might be used in much larger doses.

Dr. R. had used the remedy since, in several cases, after the usual course of treatment had failed, where the patients where completely prostrated, and invariably with success. He used it in about the proportion of 10 grs. to 4 and 6 ounces of rain water, if the latter could be obtained, if not, he used common spring or well water; and he had also combined laudanum, and sulph. morph. with the nitrate, but could not say that the smarting or burning was prevented by the combination. The pain produced by the injection was not always sufficient to make the patient complain, though it did sometimes. He thought that he had used as much as 15 or 20 grs., or that this quantity had been used by his advice in one case. He did not desire
to fix the precise quantity of the nitrate, nor water to be used in the enema, so much as to direct the Society to the remedy, and to solicit their experience.

Dr. Avent said that having heard of the use of nitrate of silver as an injection in dysentery, he had tried it in the worst case of dysentery he had ever seen, and which had resisted all treatment for five days. He said he gave only one enema, composed of 20 grs. of the medicine to 4 ounces water, which afforded immediate relief, the griping and purging ceasing instantly. He had also used it in another case, not so bad a case, however, but with marked relief.

Dr. Gordon said that he was not surprised at all at what he had heard from Drs. R. and A. as to the efficiency of nitrate of silver, in malignant cases of dysentery. He was prepared to believe any thing almost as to the remedial effects of this article in diseases of mucous surfaces—indeed it was the greatest of all remedies. But he had been in the habit of treating dysentery in a different way altogether to the one commonly pursued. He converted the dysentery into a diarrhea by giving Epsom salts in small and separate doses, and the patient scarcely ever needed any thing else. He scarcely ever gave any other medicine. The diarrhea ceased of itself by withholding the salts, and the patient got well.

On dressing Wounds and Ulcers with Charcoal. By Dr. Newmann. (Casper's Wochenschrift. Med. Chir. Rev.)—In 1846, Dr. Newmann recommended the employment of charcoal as a substitute for charpie, plasters, ointments, &c.; and since that time numerous cases ("thous-

sand" in all he says) have confirmed him in the conclusion that the great majority of open surfaces are far more rapidly healed by this means than by any other.

One great object of applications of any sort is the exclusion of the atmospheric air, which coming in contact with the pus decomposes it. The capillary action which takes place between the granules of the charcoal prevents a great accumulation of the pus on the surface of the wound, and spreads it widely, so that it dries and fills up the interstices of the powder, and prevents the access of air to the wounded surface. Charpie and lint also exert capillary action, but not to the same extent, as they cannot penetrate so closely among the irregularities and depressions of the wound. Besides this effect, due to its porosity, charcoal exerts a most favorable influence by its power over putrefaction, and hence its great use in gangrenous wounds, and in fact in all open surfaces when changes in the pus are to be feared. In corroborator of this general eulogium, the author selects certain special cases, which usually offer some difficulty in their management.

Thus every one knows what a troublesome affection is produced by an ingrowing nail, and the painful character of the remedies employed; Dr. Newman declares he is enabled to heal the obstinate ulcer thus produced in as many days as these various means require months. Having separated the soft parts from the nail, so as to expose the ulcer in its entire depth, he deposits the charcoal freely therein, having
combined with it a little acetate of lead, or oxide of zinc, leaving the entire nail covered with this, and binding a piece of lint over it, the patient, wearing a wide shoe and keeping quiet. In twenty-four hours the toe is bathed in tepid water, and new charcoal is added to the wound, without disturbing any of that previously applied, which may be firmly adherent. A week or a fortnight of such treatment suffices to heal the wound. Sore nipples constitute one of the minor ailments that cause great suffering and trouble in healing. In this case he usually employs lycopodium mixed with a little oxide of zinc (for a fine powder, not charcoal alone, though usually the most preferable one, constitutes the basis of treatment,) with which the part is well powdered each time the child has sucked. This penetrates into the fissures of the nipple, and however strongly the child may suck, some of it remains in contact. The wound quickly heals. Discharges from the ear, dependent upon ulceration of the meatus, are healed by charcoal in three or four weeks, even if the ulcerations were considerable. The meatus is syringed out every day, and the charcoal then freely introduced. Fissure of the rectum is one of the most painful and distressing diseases that come under the cognizances of the surgeon. The charcoal should be applied after every stool, and often in the day besides, care being taken to have it effectually and freely brought into contact with the fissured surface. Dr. Newmann, after expiating upon the difficulty of treating the suppurating wounds supervening on extensive burns, so as to prevent deforming cicatrices, declares that charcoal obviates much of the inconveniences, by keeping the surface of the wound dry, even when the suppuration is abundant; and that contraction does not follow, or it is much less considerable than after any other mode of treatment. If the burn is on the back, the charcoal may be freely strewed over the bed. Since he has employed the same means in gun-shot wounds, he has met with much less trismus and tetanus, and has been surprised at the rapidity of the cure. In the treatment of ulcers of the legs, even without insisting upon the recumbent posture, he has also been very successful. In a few days the surface becomes cleaned, and a good crop of granulations developed, while the callous edges are levelled. To diminish the circumference of the sore more rapidly, strips of adhesive plaster are now applied above and below it, and across its middle, the intervals between the strips being strewed with charcoal, covered with ointment spread on lint, and bandaged. This dressing is renewed every two or three days. In this way ulcers, which have continued open for years, have been healed in six or eight weeks, the patients still taking moderate exercise.

The cheapness of the substance, and the ease with which it may be prepared under a variety of circumstances when ordinary dressings are not obtainable, should recommend it strongly, Dr. Newmann observes, to hospital and military authorities.

Chloride of Gold in the Treatment of Lupus.—In the Bulletin de Therapeutique of the 30th May, M. Malichecaq, ancien interne of the
hospitals of Lyons, highly recommends the use of the chloride of gold as a caustic in cases of Lupus. His opinion is founded on well observed facts, though as yet these are not numerous. He states that there are two forms of lupus, the scrofulous and the tubercular—the first a most grave affliction, the last not so unmanageable—the first generally manifesting itself during early life, the last generally occurring at a later period in life. In the year 1849, in the hospital de Antiquaille, M. Malichecq observed sixteen cases of lupus, eleven of which were tubercular and five scrofulous. In the course of less than six months, seven of these cases were cured, and left the hospital; in all the other cases there was such amelioration as to induce a hope of complete success. The treatment in all these cases was—1st, a bitter or depurative tisan; 2d, cod-liver oil internally; 3d, cauterization with a solution of the chloride of gold repeated about every eight days. This preparation is made with one part of gold leaf, one part of nitric acid, and three parts of chlorohydric acid. This solution should be preserved for the contact of the air.

M. Malichecq gives the following rules for its application: A piece of lint held with a pair of forceps is wet with the solution, and is then passed over the diseased surface, unless it is very extensive, in which case it is better to touch only a portion at a time. The part may be freely exposed to the air. When first applied, the surface assumes a yellow color, then it becomes orange, then violet, and lastly, black. Eighteen or twenty hours after the application, irregular black scabs appear upon the surface, which fall off in six or seven days, leaving it dry if it was simply tuberculous, and apparently cicatrised if the ulceration was superficial and of small extent. These scabs must be suffered to fall off without any aid from the patient or the operator. When the scabs have fallen off, then, and not till then, the cauterisation is to be repeated.

This application usually produces an instantaneous, cutting pain, which gradually subsides in the course of an hour or longer, according to the extent and depth of the cauterization. In conclusion, M. Malichecq declares that the chloride of gold is superior to any other caustic in the treatment of lupus, whatever may be its form.

Hemorrhoids cured by the use of Linseed Oil. (Annales de Roulers. Bulletin de Thérapeutique.)—Dr. Van Ryer asserts that for nearly a quarter of a century he has employed linseed oil successfully in the treatment of piles. He gives two ounces of the fresh oil morning and night. So rapid is the amendment, that it is rarely necessary to con-
continue the remedy for more than a week. The stools are usually somewhat augmented, but neither vomiting nor other unpleasant effects are produced. Dr. Van Ryer does not consider it necessary to adopt any particular diet, except in severe complicated cases, but he advises that alcoholic drinks should be avoided, and that the alimentation should not be of a very stimulating character.

**New Cause of Deafness.**—We find in the Gazette Médicale of July 13th, an interesting case of deafness, originally reported by M. Bartolozzi in Il Progresso. A man aged forty-eight, had been deaf for many years: M. Bartolozzi, after an attentive examination, was unable to discover the cause of this affection, but he observed that the auditory canal of the left ear was white, marked with black streaks, and dry, and that the tympanum did not exhibit its usual transparency. Cotton, wet with a solution of the acetate of lead, was introduced. Five days after, he remarked some scales in the lowest part of the canal. To his great surprise, in endeavoring to remove them with the forceps, without the application of any force, he brought away a complete leaf having the exact form of the auditory canal, and with an interior extremity which had been attached to the tympanum. The patient at once recovered the sense of hearing, which was so acute as to render the sounds of the voice painful, and rendered it necessary to close the ear with cotton, until the organ could gradually accommodate itself to its changed state. The surface from which this covering was taken appeared red and injected, but soon acquired a natural appearance. A similar membrane was removed in detached pieces from the other ear. A female, aged thirty-eight years, was similarly affected, and was in a like manner cured.

The membrane was composed of several lamina, intimately united, but presented no traces of organization. When subjected to the action of fire, it gave out an odour similar to that of the hair and nails, and is consequently regarded by M. B. as of an epidemic nature.

**An extraordinary case of Lesion within the Uterus, with partial reparation before birth;** By J. D. Jones, Esq., M.R.C.S.E. (British and Foreign Medico-Chirurgical Review.)—A lady in her first confinement had, from the ample size of the pelvis, a more than usually speedy and easy labour, and was safely delivered of a male child of of average size. The attendants were somewhat frightened at observing on the back of the infant, an extensive open wound, reaching from the third dorsal vertebra, across the scapula, along the back part of the humerus, to within an inch of the elbow. A large proportion
of one part of the wound, with the exception of a nipple-like process near the vertebra, was already cicatrizd, so as to negative the idea of the wound having been produced during labour; and other parts had a healthy granulating surface. The skin and integuments only were implicated, the muscles not being in the least affected. How came this wound?

It appears that the mother, during the whole term of pregnancy, enjoyed more than her usual health, and took much walking exercise. About six weeks before her delivery, when running down stairs, she trod upon a cat, and made a sudden spring to the bottom (five or six steps,) and alighting on her feet. A severe shock was felt at the time, and slight faintness. Rest on a sofa and a glass of wine soon rallied her; but next day she had a slight sanguineous discharge from the vagina, which passed off, and the circumstance might have been forgotten but for the marked child. A blow; the funis, and the violent and sudden contraction of the uterus, are briefly discussed and dismissed as causes of this remarkable phenomena; and it is referred to the fall of the mother six weeks before as its most probable source. The case is believed to be unique; and it is pointed out as a warning against a too hasty conclusion of guilt in the mother, should such a wound be found in a recent state on the body of the offspring of an unmarried female, in whom a similar accident might possibly produce, together with the wound, premature labour and the death of the child.

New Practice in Cases of Distorted Pelvis. (Med. News, from Med. Times.)—M. Delfraysse proposes to administer iodine to the mother during the last two months of pregnancy, with the view of arresting the development of the foetus in cases of distorted pelvis. The following is the formula he employs:—

B. Iodine, 2j; ioduret of potassium, 3ij; distilled water, 3j. Six or eight drops to be taken every day in an ounce of any bland fluid.

The two following cases, illustrative of the effects of this practice, may be worthy of record:—

"A lady, whose pelvis was deformed, the antero-posterior diameter of the outlet measuring three inches only, had lost several children during delivery. The last was prematurely delivered at the age of seven months, and died a few minutes afterward. Under these circumstances, M. Delfraysse resolved on making a trial of the iodine. It was given every day during the last two months of gestation, and under its influence the lady was twice delivered at the full period without the slightest difficulty. The children were healthy and vigorous, though not larger or heavier than the child expelled at seven months. One weighed 22½ ounces less than the first children born of the same parent; the other weighed 23½ ounces less.

"The second case was also one of deformed pelvis, having previously given rise to several difficult labours, during which all the children were lost. The patient having become pregnant for the sixth time, was treated in the manner described above; the child was born at
the full period, strong and healthy, though weighing three pounds and a half less than any of the former children. No artificial means were employed. The child is now well, and strongly constituted."

Extraordinary length of Umbilical Cord. (Boston Med. and Surg. Journal.)—Dr. G. N. Thomson reports a case which recently occurred in his practice, in which the umbilical cord measured five feet and nine inches in length, and was entirely free from the varicose and knotty appearances exhibited in most cases. The child weighed between six and seven pounds, and was very lean.

Case of Lactation in a Male. By C. W. Horner, M. D., of Philadelphia. (Medical Examiner.)—It occurred in the person of an athletic American, named Charles Collins, aged 22 years, a blacksmith, working at his trade in New York. About the 10th of February last, his attention was first drawn to his left breast, which appeared to be enlarging, and continued to increase in size for three weeks, when he came to Philadelphia. After being in this city for three weeks, he became quite anxious in regard to his condition, for although he suffered very little pain, the mamma had become quite as large as that of a female nursing. He therefore, through the persuasion of an aunt, was, on the 23d of March, induced to apply at the Clinic of the Jefferson Medical College to consult the faculty of that Institution. His case came up before Prof. Mutter, who, upon examination, found the mammary gland largely developed, and filled with the lacteal secretion, which differed in no wise from that of a mother. He could assign no cause for this freak of nature; his health was very good, and the other breast natural. A soap plaster was prescribed, and compression ordered to be kept up, which he persisted in for full six weeks, when the gland returned to its usual size; and when I saw him this morning at Fairmount, where he now resides, it was in every respect like the other.

On the Hydrostatic Test. By Dr. Casper. (Casper's Wochen-schrift. Brit. and For. Med. Chir. Review.)—Dr. Casper states, that the very numerous opportunities he has had of investigating suspicious deaths, enable him to protest against the doubts which have been thrown upon the validity of this test. Of what value is the objection derived from the possibility of emphysema pulmonum being present, for who has ever seen a pathological emphysema in a new-born child? So, too, in speaking of the possibility of artificial inflation, we forget the nature of the cases which practically come before us. They are examples of solitary and clandestine delivery; and who is to act the perfidious part of infiltration? Moreover, every one who has tried it for himself must know how difficult it is to fill the lungs of a new-born child with air, and only once in about ten times can it be accomplished to the extent sufficient to alter the indications of the test. The objection derived from the effects of putrefaction is more important, but
the careful judicial physician will never be deceived even here. It results from the author’s repeated investigations, that the lungs are among the organs which latest undergo the process of putrefaction; and we may with certainty declare, that if lungs taken from a fresh or only slightly putrified body swim, they do not do so in consequence of putrefaction. Even when the child and its lungs are in an advanced state of putrefaction, the test may be of value when it furnishes a negative indication; e.g. the lungs sinking, even when far advanced in putrefaction, as Dr. Casper has frequently observed them to do. A remarkable case occurred to him, in which the heart of a very putrid child swam, but in which the lungs sank. As to atelectasis, it is very rarely met with to a great extent in new-born children; and when it has been said to have been so, this has arisen from the products of inflammation, which, unaided by the microscope, may easily happen, being mistaken for it. The author exhibited to his class the lungs of a child who died when eight days old from pneumonia, and which, throughout, were of the brownish-red colour and compact consistence of those of a dead-born child, and even the smallest portions of them sank in water. It is true that we very frequently meet with small isolated patches of atelectasis in the lungs of new-born children, but these should exert no influence in our appreciation of the test.

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Medical Miscellany.

Dr. John Bell and the Medical Faculty of the University of Pennsylvania.—We have received a pamphlet of some sixteen pages, entitled "a Memorial to the Trustees of the University of Pennsylvania," by Dr. John Bell. It is an attack upon the Medical Faculty of that University, provoked, we suppose, by the defeat of the writer in his late candidacy for a professorship, for he alludes to his having been "tripped up" recently by a majority of that body. Dr. Bell thinks that the University is not what it was in former days, when its halls were "resonant with the teachings of genius, fashioned by science, and adorned by literature." He is particularly severe upon the Professors of Anatomy, the Institutes, and Midwifery. Of the first, he complains that he borrows no philosophy from Paley, snatches no poetry from Childe Harold, or jest from Hamlet. The style of the Professor of the Institutes he charges with an obscurity which renders it unintelligible, "belonging to the school of Jeremy Bentham, bating its philosophy." He intimates that the soporific influence which the Professor of Obstetrics might desire to exert over his patients with ether and chloroform, "overspreads his class when listening to his sedative discourses." Dr. B. closes his pamphlet by intimating that the University of Penn-
sylvania has not in reality extended its lecture term to six months. He says, "is there a continuous and connected teaching of his branch by each professor during this period, in such a manner that the students failing to attend in the first month, and going away in the last, are made to understand that they lose an integral part of the courses of instruction, and that an ignorance of this part will tell against them in their examination for a degree? Mere odds and ends of lectures, theories taken up at random, during the first month of the extended session, do not meet the requirements of the case nor the expectations of too credulous friends."

We entertain a high regard for Dr. Bell, and we therefore regret that he has published his "memorial." Such strictures, under existing circumstances, do not come from him with a good grace. He is undoubtedly a gentleman of ability and distinction; but the public rarely give much weight to charges prompted by personal pique, let them come from what source they may. Recently Dr. Bell has been appointed to the Professorship of the Theory and Practice in the Medical College of Ohio, and is about to remove to Cincinnati. We have no doubt that he will prove a valuable acquisition to that institution.

Who are the Regulars? (Medical Gazette.)—In variety of doctors, New-York is beyond all England, and the distinction, if we could enumerate them all, would be multitudinous and amusing.
1. Regular graduates, M. D's. who claim to be both Physicians and Surgeons.
2. Honorary graduates, M. D's. many of whom are guiltless of any education of any sort.
3. Fictitious M. D's. who may or may not be licentiates, and yet they claim the title and wear it.
4. Licentiates of any county or state societies, who when honest, prefix the letters Dr. to their names; though many of these fictitiously assumed to be graduates.
5. Homœopaths, all of whom sign their names M. D. whether with or without authority.
6. Hydropaths, ditto.
7. Magnetic and Mesmeric doctors, some of whom claim the title.
8. Paw doctors, who profess to cure by friction with the hand.
9. Indian doctors, who profess to have knowledge of aboriginal remedies.
10. Cancer doctors, who promise to cure cancer without the knife, and who apply arsenic and other caustic plasters.
11th. Seventh-son doctors, whose "larning cum by natur."
12. Thompsonian doctors, who use lobelia, cayenne, and steam.
13. Natural bone seters, who cure by dislocating and reducing all the bones at pleasure.
14. Botanical doctors, who claim to reject all minerals, and rely for remedies on roots and yarbs.

And besides all these we have so-called oculists, and aurists, lung, liver, kidney, and urine doctors, dyspepsia doctors, and a numerous class of Lock Hospital, or secret doctors, with pile and corn doctors, et id genus omne, whose name is Legion; so that surely in this great city no one need suffer without doctoring, or being doctored, in every conceivable variety.

Thus far no mention has been made of the tribe of blood doctors—and pill doctors, and panacea doctors, and bitters doctors, and consumption doctors, and the clergymen's sore throat doctors; though many of these are veritable M. D's. But our limits will not permit us to enlarge at present, though we are sensible very many of the doctors have not yet been named. Indeed some of them, it would be a shame even to name, so shameless is their craft.

Our British brethren however have nothing to boast of in the way of exemption from quackery. So far from it, we are indebted to England, especially to London, for the worst examples among us; but it is fair to presume that many of them "left their country for their country's good."


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Death of Dr. Griffith. (Phila. Medical News.)—It is with feelings of the deepest regret that we have to record the death of Robert Eglesfeld Griffith, M. D., which took place in this city on the 27th ult.
in the 53d year of his age. Dr. Griffith possessed fine talents; in addition to a through knowledge of his profession, he was familiar with most of the branches of natural science, while in botany and conchology he stood second to few in this country; and his social and moral qualities were of the highest order.

_Southern Medical Reports._—We announce to our readers that this work has been received at the book-store of Thos. Richards & Son, of this city. By reference to our July No. the object of this publication, by Dr. Fenner of New Orleans, will be seen. As it richly deserves the encouragement of the profession, we hope the enterprise will be generously sustained by every friend to medical science.

_Dr. Buckland._—This distinguished geologist, is now the inmate of a lunatic asylum in England.


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14 Fair days. Quantity of Rain 2 inches 95-100. Wind East of N. and S. 7 days. West of do. do. 17 days.

This has been one of the hottest months ever experienced South.