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[NEW SERIES.

ART. XXXIX.—*On the employment of Tartar Emetic to relieve Rigidity of the Cervix and Os Uteri, in cases of Parturition.* By ARCHIBALD HALL, M.D., L.R.C.S.E., Lecturer on Materia Medica, McGill College; Consulting Physician to the Montreal General Hospital, and to the University Lying-in Hospital, &c.

Of the various causes which tend to complicate a labour, and render it tedious, discouraging to the accoucheur, and harassing to the sufferer, few are of more common occurrence than Rigidity of the os or cervix uteri—few, the removal of which is generally more readily effected, and in which timely relief obviates such unpleasant consequences.

The object of the present paper is not to propose a new method of relief under the circumstances mentioned, but to call attention to, and re-produce a means which has been strangely and inconsiderately neglected; which is not dwelt upon at all in most of our works of authority, or does not occupy that position which its merits so eminently deserve.

Rigidity of the os uteri consists in a deficient dilatation of the muscular fibres of that portion of the uterus, coupled with heat, dryness and tenderness, in proportion to the duration of time in which it has existed. If the rigidity has been of short duration, these latter phenomena will not be found to exist; but if of long duration, they will by their presence indicate the existence of local inflammation to a greater or less degree. This unequal or irregular contraction of the muscular fibres of the neck of the uterus, depends originally upon irritation of those fibres locally applied,

which may, if not relieved, end in inflammation—which, in its turn, proves a secondary exciting cause; and in order, therefore, to obviate a serious complication in what might have been otherwise a perfectly natural labor, the earlier this source of difficulty is detected the better, as the more conducive to the practitioner's reputation, and the safety and comfort of the patient.

Pathologically examined, rigidity of the cervix uteri consists in a *spasmodic contraction* of the circular fibres of the locality specified, and is induced by causes of an irritant nature.* The cause most frequently in operation, is the early pressure of the child's head upon the whole cervix, or a partial pressure exercised upon the anterior wall, operating upon that portion lying between the presenting part and the pubis. Under the latter circumstance, the spasm may

* Dr. W. Tyler Smith describes the opening of the os uteri, as depending "partly upon the mechanical distension of the non-contractile tissue, and partly upon the muscular dilatation of the contractile fibres which enter into the composition of the os and cervix uteri;" and applying this fact to the explanation of rigidity of the os uteri, he shows that the latter consists either in the absence of distensibility, or of dilatation, or in both of these states combined. *** "In numerous cases, both the muscular and mechanical forms of rigidity exist, and mechanical rigidity is itself sometimes a cause of spasmodic closure of the os uteri. The heat and irritability of the os uteri render it morbidly excitable, and the presence of the liquor amnii, or the presentation instead of exciting a reflex dilatation of the mouth of the uterus, excites it to spasmodic contraction."—*Braithwaite's Retrospect, Vol. 19, from Lancet, Nov. 25, 1848.*

"This unfavourable state of the os uteri (rigidity) may be discovered to exist at the very commencement of its dilatation, or may not occur until the process of dilatation has somewhat advanced; in the former case it is the result of the premature rupture of the membranes, in the latter, most probably owing to a spasmodic contraction of the cervical fibres, produced by the irritation of unnecessary and too frequent vaginal examinations, or the effect of pressure on the cervix between the child's head and bony pelvis. &c. &c."—*Dr. A. Tyler's Lectures on Practical Obstetrics in British Record of Obstetric Medicine, Vol. 2.*

be partial, involving only the anterior lip of the cervix; under the former circumstance, the spasmodic action may be complete, and in the majority of cases, will be induced by the early rupture of the membranes, in either an artificial or spontaneous manner, with a general pressure of the child's head, or other presenting portion, upon the cervix, thereby compressing it upon the brim of the pelvis.

Cases, however, are recorded in obstetric works, in which the rigidity has depended upon a *cartilaginous* degeneration of the muscular fibres of the cervix, and upon cicatrization, the consequence of sloughing from injuries which that part of the viscus may at some antecedent period have received. Such cases, fortunately very rare, require a specific line of treatment by the knife. The fact is here only worthy of notice as having originated a division of this peculiar complication of labour into the two varieties of *symptomatic* and *idiopathic*.

Flowing from the idea, perfectly correct, that the irritation is likely to be succeeded by inflammation, unless quickly relieved, most obstetric works recommend, to overcome the difficulty, the practice of venesection, or the exhibition of opium.* But few authors advise

* "When the orifice is rigid, undilated and undilatable, we should employ to overcome this resistance, the various means I have already suggested; bleeding if the patient be phlethoric, baths, unctions on the cervix, with the extract of belladonna."—*Chailly's Midwifery, Am. Ed. 1844, page 273.*

"When there is much vascular excitement, &c., it is almost always advisable to abstract blood. The quantity must, of course, be regulated by circumstances; but as a general rule, I would say, let it be the minimum required. I think I have observed considerable benefit to result in such cases as these, from the employment of nauseating doses of tartar emetic, in conjunction with, or as a substitute for bleeding; but there certainly are circumstances under which the latter cannot safely be dispensed with. Opium has been much recommended as a relaxant, but it is a medicine, the effect of which in parturition, we cannot accurately measure. * * * * * Other means, as fomentations, the introduction of tallow into the vagina, application of belladonna to the os uteri, injections of tobacco, the warm bath, &c., have been recommended; but of their effects I know nothing from experience, and a *priore* see no reasons that can sanc-

a resort to tartar emetic; and in most of the works of authority to which I have had access, they recommend it as an *adjuvant* to the venesection, and by way of securing the effects of the bleeding upon the system. The local application of Belladonna has also been advised by Mr. Dubois of Paris.†

Therapeutic agents are of value exactly in accordance with the effects which, under peculiar circumstances, they are capable of producing. This I apprehend to be an axiom in medicine, and by which the relative value of medicinal agents may be accurately measured. I propose now to examine these several modes of treatment, keeping the above axiom in view.

I. With regard to venesection. This seems to be the established rule of practice, and is sanctioned by every author of note. Bleeding, in its influence upon the system, is one of the

"ion their use."—*The Dublin Practice of Midwifery, by H. Maunsell, M.D., 1845. Page 142 and seq.*

"Nauseating remedies, and even tobacco injections have been tried to a considerable extent, for the purpose of relaxing the mouth of the uterus, but they produce little or no good effects, and cause much suffering to the patient."—*Library of Medicine, Vol. 6, page 199.*

"For myself, in endeavouring to effect a relaxation of the soft parts, fomentations and bleeding are the remedies to which I principally confide."—*Principles and Practice of Obstetric Medicine, by J. Blundell, M.D.*

"For rest of body, tranquillity of mind, the abstraction of stimuli, the loss of blood, free bowels, and not allowing the soft parts to be disturbed by ill-timed and officious touching, or ill-conceived manual aid at the mouth of the uterus, have, in a thousand instances, overcome every difficulty presented by simple rigidity."—*Dewees' system of Midwifery, 1847, page 302.*

"If the patient be strong, phlethoric, and disposed to make violent straining efforts, a free depletion from the arm will be of use; it diminishes the tendency to inflammation, and produces a feeling of exhaustion in the patient which induces her to bear her pains more patiently. In order to produce such an effect depletion may be followed by tartarized antimony, in small doses, so as to excite nausea," &c.—*Lectures on Natural and difficult parturition, by E. W. Murphy, M.D., 1840, page 128.*

The multiplication of authorities is I think unnecessary.

† Besides the employment of bleeding, tartar emetic, opium, and belladonna, advantage has also been derived from the local application of leeches; the warm bath, the exhibition of purgatives and artificial dilatation. More lately, Dr. Scanzoni advises a continued douche of warm water, applied to the os uteri by a special apparatus; and, more lately still, Dr. Snow has found advantage from the employment of chloroform.

most certain and powerful sedatives which we possess, and presents strong claims to our consideration, under the peculiar circumstances of the case. To be of any real value, however, it requires to be vigorously practised, and relaxation will be found rarely to follow, until a large quantity of blood has been abstracted, and syncope is on the point of supervention. There can be no question that the best effects follow its employment, as far at least as rigidity is concerned. But is this line of practice always expedient? Is it always imperiously demanded? When the os uteri exhibits heat, dryness and tenderness, such effects being the evidence of existing inflammation, the propriety of the practice cannot be questioned. But before the development of these symptoms, several hours may elapse, during which the effects of irritation alone are apparent as indicated by the mere rigidity. Under these circumstances, bleeding is *not* imperiously demanded, chiefly because it entails an unnecessary withdrawal of blood, inductive of debility, and protracted recovery—thus effecting more than we desire. The practice, however, is recommended and sanctioned by Burns, Dewees, Blundell, Ramsbotham, Chailly, Cazeaux, and a host of others.

2. The exhibition of opium is not always attended with the advantages which we might *a priori* be led to expect from its well known narcotic powers. If exhibited, full doses should be employed: but as in the case of bleeding, it is liable to effect too much—it may lull the uterine contractions, and thus suspend the labour, which it is generally desirable to expedite.

3. The local application of Belladonna. This was first proposed by Chaussier, who suggested its use in the form

of ointment made with cerate, reasoning analogically from the influence of this medicine upon the iris. Dubois subsequently used the extract in its undiluted state. The practice is peculiarly French, and has not been followed to any extent by either British or American accoucheurs. That the application of the belladonna will produce relaxation is admitted on all hands; but the extent of that relaxation cannot be predetermined. It may affect the whole muscular coat of the uterus, and be thus productive of alarming consequences.

4. Tartar Emetic. The prostration and muscular relaxation produced by this agent, almost naturally indicate its employment in cases of the kind we are considering. Nausea having been once established, the rigidity will in a very large majority of cases be found readily to yield. Tartar emetic seems almost to exert a special influence on the cervix, for while the contractions of the fundus and body of the uterus are not interfered with, dilatation of the cervix will be found to proceed rapidly, and this the result of the re-establishment of the reflex actions existing between the stomach and the uterus, which are apparently suspended.

The few authors who have advocated the employment of tartar emetic in these cases, have generally prescribed it in doses of one fourth of a grain repeated every three or four hours, until its influence became apparent by the gradual dilatation of the mouth of the uterus. There is certainly no worse system of midwifery than the meddling midwifery; but if, in any case, interference is demanded, whether of a manual or medicinal nature, the object should be a speedy delivery, consistent with the safety of the mother and the child. My own observation has led me to the belief that it may be safely resorted to in much

larger doses, and with more prompt relief; and I cannot but view the mode of employing the medicine indicated above, as attended with a very considerable and quite unnecessary sacrifice of time on the part of the accoucheur, and of prolonged suffering on the part of the patient. I, accordingly, prescribe it in one grain doses, repeated every half hour, and I have not as yet, found it necessary to exhibit the medicine in such doses more than thrice, relaxation most commonly following the exhibition of the first grain. The following cases, from rough notes in my possession will, I hope, demonstrate the value of the practice:—

Case 1. March 2, 1846. Mrs. P., (Bonaventure Street,) in labour of her first child; had been under the care of a midwife for the last seven or eight hours. Her age was 36, stout and healthy; was called about 1 a. m.; for the last two or three hours labour had made no progress; pains, severe and regular; membranes ruptured about 9 p. m., the preceding evening. On examination, the perineum and vagina were found sufficiently soft and yielding; the os uteri was dilated to about the size of a half crown, was thick, firm and rigid, through which the scalp protruded to a considerable extent. The impediment being clearly the rigidity of the os uteri, I prescribed to her one grain of tartar emetic, to be repeated every half hour until relaxation followed; after three doses were taken, relaxation followed, and the child was born in the course of an hour afterwards. In this case no nausea supervened until the second dose had been swallowed, and vomiting did not occur until the third had been administered. The vomiting was not urgent, and did not appear in the slightest degree to impede the progress of the labour. The subsequent recovery was complete.

Case 2. Dec. 20, 1846. Mrs. L., (Notre Dame Street.) Symptoms of labour came on about 11 p. m., and I was sent for about 3 a. m. This lady was of a delicate constitution, and had already given birth to two children, both of whom were still-born. Of the cause of this I could not satisfy myself at the time, but in both instances the labours were protracted. On examination, I found the membranes protruding through a partially dilated orifice, and could with some difficulty satisfy myself of a natural presentation. In the course of about two hours the membranes ruptured, and the child's head having descended lower, the presentation was accurately determined, left occipito-cotyloid. Everything appearing to progress favourably, no further examination was effected for an hour; at this period, the anterior lip of the os uteri was found forced down in front of the head during each pain, acting at the same time as a tight band across it. Several ineffectual attempts were now made to push it up during the pains; these proving abortive, recourse was had to the tartar emetic. Half a grain was immediately exhibited in a little water, and before the expiration of half an hour, the rigidity of these fibres of the cervix had yielded, the child's head was firmly forced down, and at about nine o'clock a. m., she gave birth to a living child. It is not an improbability that the two previous protracted labours of this lady were due to the same cause, and that interference was too long postponed. I have attended this lady a second time since, and the same anomalous condition of the cervix uteri occurred.

Case 3. June 3, 1847. The husband of Mrs. O'N. (St. Joseph Street) requested me to visit his wife, who had been about thirty-six hours in labour. I

found her under the charge of an ignorant woman, who claimed to act as a midwife. She was about 40 years old, had had six children previously, was of short stature, and very muscular. The membranes had ruptured, and the waters had dribbled away several hours previous to my visit; the head rested upon the brim of the pelvis; os uteri dilated to the size of a crown, hot and irritable, and feeling like a ligature applied over the presenting parts; the vagina hot and tender, and the labia considerably swollen. Found that the midwife had examined her very frequently, and had caused some pain during her manipulations. These effects might have been ascribed as much therefore to improper interference, as to the pressure of the head on the bony pelvis, compressing the cervix. Inflammation was here clearly setting in, and I abstracted about $\frac{3}{4}$ xxx of blood; she bore it well; but in the course of about 20 minutes, upon examination, finding not the least impression upon the os uteri, I gave her the tartar emetic, in preference to further abstraction of blood. After three grains had been taken, the rigidity yielded, and although the perineum, at a subsequent period, offered an obstacle, yet patience overcame the difficulty, and the child was born, although dead.

Case 4. (Nov. 5, 1850.) Mrs. M.P., (Cheneville Street,) had been under the care of one of the most experienced midwives in the city. Her labour up to seven o'clock, p. m., had lasted for nearly forty-eight hours, and was, in all other respects, perfectly natural. I was sent for at that hour; it was her first child. The mother was healthy, stout, and well formed, and aged about twenty-five. On examination, every thing was normal, with the exception of a rigid band of the os uteri, dilated to about

the size of a dollar, encircling the presenting vertex. The membranes had ruptured several hours previously, and by stethoscope, the fetal pulsations were clearly audible. In this case, one grain of tartar emetic produced such immediate and complete relaxation, that the child was born in about thirty-five minutes afterwards. In no case which has come under my observation have I witnessed such marked beneficial results following its employment.

It must be admitted, however, that cases may be met with in which its exhibition would be decidedly improper. These exceptions to the rule will be found to occur in women of delicate habit and leucophlegmatic temperament. They are cases in which the action of the remedy, if exhibited, may proceed too far; which, unable to resist the prostrating effects of the medicine, might be followed by a collapse, to which the vital powers of the system might succumb. This is a contingency which should be sedulously kept in view; and prudence demands, therefore, some care in the selection of proper cases for its exhibition.

I have selected the above cases, and have given them as abstracts from my note book, for the purpose of illustrating the effects of the medicine, and of drawing more general attention to it. I place them before the profession with that object alone in view.

Montreal, Nov. 15, 1850.

ART. XL.—*Hæmorrhage occurring a fortnight after Extraction of a Molar Tooth.* By EDW. Q. SEWELL, M.D., *Edinburgh, Extraordinary Member of the Royal Medical Society, Edinburgh, &c.*

M—B— was on a visit to her friends. A fortnight before, she had a molar tooth of the lower maxilla extracted at the place where she was then

residing, and in the operation a portion of the jawbone, of apparently inconsiderable size, was carried away; but this accident did not, at the time, nor during the intervening period, give rise to any inconvenience, beyond a slight feeling of tenderness, when her food happened to touch the affected side. In the night of the 29th July last, however, she awoke out of her sleep with her mouth full of blood; upon my arrival I found her bleeding profusely, and the utensil into which she spat appeared half filled with the clotted fluid. My first thought was, that the hemorrhage might be due to sponginess of the gums, but upon examination, they proved to be in a perfectly healthy condition. I next discovered a *hiatus*, caused by the absence of bone, which, as I mentioned above, was of no great extent. I then adopted the usual treatment to be followed in these cases, and after some trouble, succeeded in arresting the hemorrhage, of which there has since been no return.

The interest of this case lies in the fact of hemorrhage coming on at so late a date after the tooth was extracted, and the practical inference to be drawn from it is, that hemorrhage, particularly in cases accompanied with splintering of the maxilla, may be looked for at any period, so long as the cavity left by the tooth remains patent. As the bleeding occurred during sleep, the cause was probably ulceration of the artery; had it taken place during the act of eating, I might, perhaps, have ascribed it to a direct wound of the vessel from a spicula of bone.

Sorel, October, 1850.

ART. XLI. — *Horses and their Diseases: Lamenesses — Exostoses: — Splint — Spavin — Ringbone.* By J. B. TURNER, V. S.

Bone Spavin is the next disease occasioning lameness in the horse, that we

shall consider. This exostosis is known among French writers as *l'éparvin de bœuf*.

As in our former papers, we shall first describe the anatomy of the hock (*tarsus*) of the horse, the seat of this disease. The *tibia* terminating in its *malleolus* articulates with the *tarsus* or hock; the *os calcis* forming the point of the hock as in man it forms the heel; then we have five small bones in sets or layers—the *astragalus*, *cuneiforme magnum*, *cuboides*, *cuneiforme medium*, and *cuneiforme parvum*—the inferior layer articulating with the *metatarsus* and the two *metatarsi parvi*. The *metatarsus* is vulgarly called the cannon or shank bone; and the *metatarsi parvi* answer to the *metacarpi parvi* or splint bones of the fore-leg.

The *metatarsus* and the *metatarsi parvi*—the latter having a cartilaginoligamentous union with the former—support the lower layer of the small bones constituting the *tarsus*, or hock joint. The *cuboides* rests principally on the *metatarsus* or shank bone, and slightly on the outer *metacarpus parvus* or the outer splint bone. (We shall after this use English names.) The middle *cuneiforme* rests entirely upon the shank bone, and the smaller *cuneiforme* rests in a small degree on the shank bone, but is almost entirely supported by the *inner* splint bone. Thus it happens that the splint bones sustain a very unequal degree of concussion and weight, for the inner one is not only placed more under the body and nearer the centre of gravity, but it has almost the whole of the weight and concussion communicated to the lesser *cuneiforme* carried on to it.

Now then, according to our best authorities, the weight and concussion thrown on the inner splint bone, in the first place, produce inflammation in the

cartilagino-ligamentous substance by which it is united to the shank bone; the union between the two bones becomes ossific instead of cartilagino-ligamentous; the cartilage being absorbed and bone deposited; the degree of elastic action in the parts is destroyed and there is formed on the hind leg a deposit precisely similar in character to that which we call splint in the fore leg; we find it uniformly on the inner side of the hock, because it is on the inner splint bone that the greatest weight is thrown. This deposit forms a tumor—in stable language known as “bone spavin”; and in ninety-nine cases out of a hundred, it appears at that precise point where the head of the splint bone unites with the shank bone, and rather in front of the union. There is however no doubt, that with the peculiar predisposition to exostosis which the bones of the horse undoubtedly have, any inflammatory action taking place among the ligaments of any of the small bones of the hock, and proceeding to bony tumor, might with equal accuracy be denominated *spavin*.

Mr. Percivall and Mr. Youatt, two of the greatest authorities, consider splint and spavin as identical in character, though different in situation. The former writer observes, that “if the inflammation extends from the cartilagino-ligamentous substance (that connecting the smaller with the larger metatarsal bone) to the ligament and bones of the hock, and there terminates in effusion of bony matter; or if the exostosis of the inner splint bone is itself so placed as to disturb the motions of this joint, then does a *spavin* differ materially from a *splint*.”

The question then is, does spavin always confine itself to that part (that is, the place where the splint bone is united by cartilagino-ligamentous substance

to the shank bone) in which splint is found in the fore leg? We should say that it rarely, if ever, does; for we believe that the inflammation which is followed by the bony deposit almost invariably takes place higher up, among the small bones of the hock, and that whether it begins there or does not, these small bones ultimately partake of the disease. We have examined after death spavins of all sizes, varying from the slightest deposit, to one which involved the whole joint, and find that in every bad case, the cuneiform bones are united together by a layer of ossific matter, extending upwards from the heads of the metatarsal bones, depriving the whole joint of motion. In one case which we examined, the whole of the bones of the joint—including the higher articulation with the tibia, and the lower with the metatarsi—were included in one huge mass of bony deposit, with spiculæ protruding from it in all directions. Mr. Mason, V.S. of this city, possessed a specimen in which the hock joint was positively as large as a child's head, but it was unfortunately destroyed in the fire which consumed his premises before a preparation could be made of it. The disease is remarkably prevalent in this country.

We do not think it necessary to continue this part of our subject to greater length, or to quote the various opinions held by authors. It is sufficient for us to know that spavin is a bony deposit on the inside of the hock joint, and for the most part within the ligaments of that joint.

The Cause of Spavin.—This may be very shortly defined, for we apprehend that there can hardly be two opinions on this matter. Anything that distresses the ligaments of the joints—such as violent leaping or galloping; the exercise of the riding school, in which the horse

is suddenly and strongly thrown upon his haunches; in fact any continuous series of violences, extreme in intensity or duration—have a tendency to produce inflammatory action, and that inflammatory action leads to the formation of a bony deposit.

The lameness sometimes precedes the spavin—or we should rather say, that lameness exists before the bony tumour is visible, and some times disappears after the tumour is formed. The effect of spavin being to join the small bones of the hock together, the spring is thereby destroyed which the existence of these joints, as it were, below the astragalus, is capable of affording. If the spavin be situated low down, it interferes with the action of one of these joints only, and this is compensated for in some degree by the free motion still remaining to the other. But if it be situated high up, so much the worse is it; for the action of the whole hock joint is affected, the different bones having become ankylosed together. The lameness resulting from spavin is peculiar, there being a quick catching motion of the leg, not observable in other lamenesses to so great a degree. Spavin, when arrived at a certain stage, does not usually increase; and a spavined horse may work for years for some purposes, and prove very useful. There is however one thing which may be observed: Lamenesses before, force a horse to lie down, while those behind often prevent him from doing so—the horse instinctively dreading that if he do lie down he will have difficulty in getting up again. Therefore post-masters, coach-owners, &c. whose horses have to work hard, and consequently require as much rest as they can get, are generally shy of buying spavined horses, though they don't much mind purchasing animals that are screwed or groggy in the fore

legs. We should therefore recommend our friends in the profession of human medicine, whose horses are proverbially hard worked, to steer clear of spavins.

Treatment of Spavin.—Mr. W. C. Spooner, V.S., in speaking of this disease, simply observes:—"It must be confessed that whatever treatment we may employ for spavins, the great majority of cases will be unsuccessful—the lameness will still remain"—and he details no plan of treatment—a pretty sufficient proof that he thinks none likely to be of any avail. It is needless to waste time in detailing the modes of treatment adopted by the old farriers; we mentioned some of them in our paper on splint, and they were by those persons applied in the same way to spavin, and were as barbarous as inefficient. In the early stages of this disease, blistering and firing have been tried, and at the Royal Vet. College the practice is to pass a seton through the skin over the course of the tumour, dressing it daily with some stimulating substance, with the intent, of course, to promote absorption of the deposit, or at least to prevent its further increase. Our own opinion is, that although we would certainly be justified, in the early stage, in trying what we could do, spavin is one of the *opprobria* of veterinary surgeons, and that our labor will be in vain; we never saw a case in which good was done by an attempt at surgical treatment.

As to the removal of this exostosis by operation, cutting down on it and chiselling it off, a thing talked of, and advertised as to be done successfully in papers in the United States, we can only say, that the man who would lay open the cavity of the whole hock joint to get at the spavin, is a much bolder Vet. than we claim to be. It may

be depended on, that a regular Jack-spavin is a thing not to be cured.

In conclusion, we may observe, that bone spavin is in England held to be unsoundness of the worst description, and it is so also by law in France, under the act of the French Assembly, dated the 20th of May, 1838, coming under the head of "*boiterie pour cause de vieux mal.*"

PRACTICE OF MEDICINE.

On Hæmoptysis in Phthisis. By M. GENDRIN.—After a good injection of the pulmonary arteries and veins of a lung infiltrated with tuberculous matter, we find that the extreme radicles of these vessels are impermeable around the tubercular concretions. This is the reason why these persons are so liable to hæmoptysis; for the obstruction of a certain portion of the capillaries, forces the others to receive the entire quantity of blood brought by the pulmonary artery. This produces their congestion and rupture, and consequent bloody expectoration.

Hæmoptysis may show itself in the form either of abundant discharges, or of mere streaks. The first usually occur in the early stage of the disease, and are due to the above-mentioned cause. Sometimes several such attacks may occur before the proper symptoms of tubercle become evident. In advanced phthisis, the cells and capillaries are too much obstructed to admit of profuse hæmoptysis; but bloody streaks may occur from rupture of some small, yet permeable vessel, or from exudation from the mucous membrane. The occurrence of large hæmoptysis is very rare at this period, and when it does take place, it arises from the rupture of a large, yet still permeable vessel, as it traverses a cavity. Hæmoptysis does not necessarily imply phthisis, for it may be caused by pulmonary congestion, arising from other causes, as disease of the heart; but when it appears in the form of bloody streaks, it always denotes phthisis.—*Gazette des Hôpitaux*, Nos. 13 and 19, and *British and Foreign Medico-Chirurgical Review*.

Induration of the Brain.—Professor Friericks (*Hæser's Archives*), has noticed a form of cerebral induration which he considers to be hitherto undescribed. The lesion usually appears in the medullary layers, beneath the lateral ventricles; its progress is slow, extending over several years. The induration is abruptly circumscribed, and does not involve the membranes in its vicinity.—The symptoms are stated to be gradual loss of power in the voluntary muscles, ending in paralysis, not preceded by headache or other signs of cerebral congestion. The cerebral matter in the diseased spot has entirely lost its normal character, being converted into a substance resembling fibrin.

On the Necrosis of Lucifer Match Makers.—Dr. Bauer (*Medicinische Correspondenz. Blatt*) affirms that the vapours of phosphorus are the immediate cause of the necrosis of the jaw-bone, to which the makers of lucifer matches are subject. The vapours disengaged during the process of manufacture was composed of phosphorous and phosphoric acids. The latter, combined with lime, forms an important normal ingredient in bone, in which it exists as a basic insoluble salt. By the addition of a fresh proportion of phosphoric acid, which penetrates the bones, the phosphate is converted into the super-phosphate of lime, a salt which is soluble and even deliquescent. As a consequence the bone becomes softened, inflamed, suppurates, and eventually becomes necrosed. This view of the disease is confirmed by the analyses of diseased bone made by Bibra.

As the result of this theory the author suggests the following precautions:—

1. To prevent the action of the phosphoric vapours upon the teeth by a mask, in which is fixed a sponge dipped in some alkaline solution.
2. To have large flat vessels containing alkaline solutions distributed through the workshops.

The curative treatment proposed by Bauer is purely chemical. He endeavours to restore the bone to its original state by reconverting the salt of lime to the simple phosphate, with the aid of alkaline medicines, and more particularly lime water.

On the Causes of Œdematous Laryngitis. By Professor BARTLETT.—Œdematous laryngitis sometimes occurs spontaneously in persons at the time with any general or local disease, and without any appreciable determining cause. This, however, is not common. It happened only three or four times in Valleix's forty cases. In most instances the disease is connected with some general morbid condition or with some local affection.

Local Disease in and about the Glottis.—The primary affections, acting as determining causes of the œdematous laryngitis, and thus enumerated by Valleix:—1. Simple inflammation of the laryngo-pharyngeal mucous membrane. 2. Ulceration, acute or chronic, of the larynx and sometimes of the pharynx. 3. Simple abscess of the pharynx, and sometimes of the larynx. 4. Alterations more or less profound, of the laryngeal cartilages, with submucous abscesses, or disease of the mucous membrane. 5. In rare instances, inflammation, of an organ more remote such as the tongue.

Convalescence from Fevers.—The frequent occurrence of œdematous laryngitis during convalescence from low fevers was noticed by Bayle, the first historian of the disease. As to the primitive form of this angina, he very truly says:—It comes on most frequently during convalescence from febrile diseases of a grave character, such as adynamic or ataxic fevers. There was an extraordinary frequency of the disease in the New York Hospital, between the months of December, 1847, and February, 1848. During the period, says Dr. Buck, the season was remarkably rainy and wet, accompanied with very little snow, and characterized by the prevalence of erysipelas and typhus fever, as well as an asthenic type in other diseases, both in and out of the hospital.

The following is a tabular view of the circumstances under which the forty cases, analyzed by Valleix, occurred:—

During convalescence from severe fevers.....	10
During convalescence from pneumonia.....	4
In the course of erysipelas.....	1
After scarlet fever.....	1
After lithotomy.....	1
During treatment of fracture, with fever.....	1

During convalescence from cerebral congestion.....	1
In the course of bronchitis.....	1
In the course of hypertrophy of the heart.....	1
In the course of elephantiasis.....	1
In the course of laryngeal phthisis.....	9
In the course of cancer of the larynx.....	1
With syphilis.....	2
During good health.....	4
State of health not mentioned.....	2
<i>Age, sex, season.</i> —The following table shows the ages in thirty-six cases cited by Valleix:—	
Under 10 years.....	2
From 10 to 20 years.....	5
“ 20 to 30 “.....	8
“ 30 to 40 “.....	4
“ 40 to 50 “.....	8
“ 50 to 60 “.....	5
“ 60 to 70 “.....	3
At 71.....	1

The disease is much more common in the male than in the female sex. Of Valleix's forty cases, twenty-nine occurred in males, and eleven in females.

It does not appear that season or weather has any very marked influence in the production of the disease. Of thirty-nine cases mentioned by Valleix, twenty-one occurred between October and March, and eighteen between April and September.—*New York Journal of Medicine*, May, 1850.

On the Styptic properties of Oil of Turpentine in Purpura.—Dr. Budd has given a clinical lecture specially illustrative of the action of turpentine in hæmorrhagic affections. The case which gave rise to his observations was one of purpura in a female aged 65, who, five days before admission became covered with purpurous spots; she also had bloody urine, melæna, and also bled profusely from the mouth. The latter symptoms in a few hours became alarming, and reduced her to a state of extreme exhaustion. The treatment first adopted was that of exhibiting chlorate of potash internally, together with generous diet and wine. The bleeding gums were washed with turpentine, and attended with immediate relief. The other symptoms, however, were in no way mitigated, and after four days trial of the chlorate of potash, twenty drops of Ol. Terebinthinæ were given every

four hours in mucilage. Before four doses had been taken all bleeding had ceased. On the following day the urine was transparent. The medicine was continued a fortnight, when strangury appeared, and it was suspended.

In his remarks on the above case, Dr. Budd gives a brief historical sketch of the employment of turpentine, and also alludes to certain inconveniences which attend its use. Of these, the principal are sickness and strangury. The first is best obviated by combining creasote, the other is less amenable to treatment. *Medical Times*, August 17, 1850.

[We have used turpentine in two cases the exact counterparts of the one above related. In the first, one dose of half an ounce, entirely checked bleeding, which had occurred from every mucous membrane simultaneously; the other case died chiefly from mæœna, the turpentine having produced unmanageable strangury, and all other medicines being completely useless.]

Lecture on the Classification and Diagnosis of Diseases of the Skin, delivered at the College of Physicians and Surgeons, Crosby-Street.—By H. D. BULKLEY, M. D.—You are aware gentlemen, that Prof. Parker has called occasionally on me for remarks on the cases of cutaneous disease, which, with many other interesting cases of a varied nature are presenting themselves, during the hours which he devotes to the important subject of clinical instruction, every week in this institution. I suggested to him that a brief explanation of the principles of classification of these diseases, and of the characteristic marks of the leading divisions among them, would be likely to render any information which I might be enabled to contribute on this particular branch much more available to the class, by affording a definite place to which they may refer the cases which may be examined. It is this task which I now propose to undertake, and shall therefore confine myself to the broad outlines of the subject.

Diseases of the skin have been classified according to several different principles. They have been divided into two principal groups, according as they affect the head, or the rest of the body; the subdivisions into species and varieties being derived from the secondary

forms or products of inflammation, as the shape, colour, dryness, or moisture of the scabs, &c. This was for a long time the plan pursued by Baron Alibert, who, in the latter part of his life, exchanged it for a more erroneous one. They have also been divided into acute and chronic, and have been arranged, too, according to their supposed causes. Still another system of classification which has been attempted is one founded on the special seat of each lesion. Each of these modes of classification is open to objections, which want of time will not at present enable me to point out, and I shall do no more than explain to you the system which I prefer, the one founded on the elementary form of each disease. This principle of classification, first proposed by Plenca, and carried to a high degree of perfection by Willan, has been still further improved by Bielt, and is the one most generally adopted. This system is the most simple, the most easily understood, the most philosophic, and, to a certain extent the most natural, although it is, as every system of classifying these diseases must be, to a very great degree artificial. And to whatever degree of perfection our knowledge either of the precise anatomical seat of each lesion, or of the special causes of these diseases, may reach, a system founded on external signs, and which consequently can be appreciated by the senses, will always be useful, and even necessary. The classification of Bielt, to which I refer, you will find in the work of Cazenave and Schedel, on Diseases of the Skin, a work which embodies the valuable information, as to the diagnosis and treatment of these affections contributed by that accurate and scientific observer. By comparing this with the system of Willan you will perceive that they both agree precisely in the orders into which they divide these diseases, differing only in their arrangement of them. A more minute examination of them will show a material difference in some of the genera under these different orders, the reasons for which could also be made to appear very satisfactorily.

The following is the Classification of Bielt:

ORDER I.	ORDER IV.
EXANTHEMATA.	PUSTULE.
1. Erythema.	1. Variola
2. Erysipelas.	2. Vaccinia.

- | | |
|----------------|--------------|
| 3. Roseola. | 3. Ecthyma. |
| 4. Rubeola. | 4. Impetigo. |
| 5. Scarlatina. | 5. Acne. |
| 6. Urticaria. | 6. Mentagra. |
| | 7. Porrigo. |

ORDER II.

VESICULÆ.

1. Miliaria.
2. Varicella.
3. Eczema.
4. Herpes.
5. Scabies.

ORDER III.

BULLE.

1. Pemphigus.
2. Rupia.

ORDER VII.

TUBERCULA.

1. Elephantiasis Græcorum.
2. Molluscum.
3. Frambœsia.

ORDER V.

PAPULÆ.

1. Lichen
2. Prurigo.

ORDER VI.

SQUAMÆ.

1. Lepra.
2. Psoriasis.
3. Pityriasis.
4. Ichthyosis.

ORDER VIII.

MACULÆ.

A. Alterations of Color.

1. Bronze Color.
 2. Ephelis.
 3. Nævi
- B Discolorations.
4. Albinismus.
 5. Vitiligo.

Diseases which cannot be referred to any of the preceding orders.

ORDER IX.

LUPUS.

ORDER X.

PELLAGRA. ELEPHANTIASIS ARABUM.

ORDER XI.

SYPHILITICÆ.

ORDER XII.

PURPURA.

ORDER XIII.

ORDER XIV.

CHELOIDES.

Each of the preceding orders is founded on an elementary lesion, which is always, constant, and which can almost always be detected with a little care, either in the centre of the spot itself, or about its borders, and is characterized by the following distinguishing marks:

First, the EXANTHEMATA.—These are characterized by redness of the skin, disappearing under the pressure of the fingers, and returning when the pressure is removed: this redness being either diffused over the whole surface, or appearing in distinct spots of variable size and shape, scattered irregularly over the body, and terminating by delitescence, (called also retrocession, or *striking in*.) by resolution, or by desquamation.

By VESICLES are intended slight transparent elevations, formed by the deposit

of a minute quantity of serum, either with or without coagulable lymph, under the epidermis, which fluid may, under certain circumstances, become opaque, and even sero-purulent. This fluid may be either re-absorbed, or may be poured out after the rupture of the vesicles, which may be followed by desquamation, by superficial excoriation with exhalation of serum, or by very thin scabs.

Next we have BULLE, of which a blister is the best type, and which consists of small, superficial, watery tumours, usually transparent, but sometimes sanious, formed by the effusion of serum or coagulable lymph under the epidermis, varying in size, usually from that of a small pea to that of a walnut, or even of a hen's egg; followed, in one form by a thin, light-coloured superficial scab, and in the other, by a thick and dark-coloured one.

Then we have the PUSTULÆ, which consist of small collections of purulent matter, usually with an inflamed base, either in follicle, or under the epidermis, or in the areolæ of the dermis. These generally assume, (in drying,) the form of hard and thick scabs, and leave after them chronic indurations, or red inflamed surfaces, and sometimes slight excoriations.

The next order is that of the PAPULÆ, which are characterized by small, solid, and resisting elevations, containing no fluid, almost always accompanied by great itching, sometimes ulcerating at their summits, but terminating more frequently by resolution, or by a branny desquamation.

We then have the order of SQUAMÆ, which are characterized by laminae of the epidermis, in an altered and dry, and almost always thickened state, which are white and friable, sometimes arranged in distinct spots, and at other times more or less spread over the body, and which are constantly thrown off, for an indefinite period of time, from the inflamed skin.

Next in order, are the TUBERCULA, which in (cutaneous pathology) are small, solid, circumscribed, persistent tumours, of greater or less elevation, of a larger size than papulae, which may terminate by resolution, by induration, by partial suppuration, or by ulceration of their summits.

The last of the regular orders is that of the *MACULÆ*, which consists of deep and permanent alterations of the colour of the skin, either of its whole surface or of some parts of it only, without elevation or desquamation, and unconnected with any general derangement of the system.

By reference to plates, you will see illustrations of these different orders, and will perceive by the broad lines which divide these diseases into classes or orders, which I have described, can be made perfectly distinct, and an examination of cases of disease will show you that they exist in nature.

You will now observe that we have six diseases or forms of eruptions which Bielt said, cannot from their nature be included in either of the preceding orders. But *Lupis* is unquestionably tubercular in its elementary form, (and is thus arranged by Rayer,) may therefore be referred to its appropriate class. *Pellagra*, which is endemic in certain parts of Italy, is not, strictly speaking a cutaneous disease, but one involving most seriously a more important and indeed vital organs, which an accompanying erythematous affection, and which might be properly classed among the exanthemata, if retained. The cutaneous manifestations of syphilitic disease, assume almost and perhaps quite all the different elementary forms, and each form may therefore be arranged under its appropriate elementary order. *Elephantiasis arabum* is not originally a disease of the skin, but of the cellular substance primarily, and affecting the integuments secondarily; and *cheloïdes*, if a disease of the skin, is decidedly of a tubercular character—so that, by adding a 9th class, under the name *HEMORRHAGIÆ*, to afford a place for *purpura*, it seems to me, with due reference to the deservedly high claims of one who has done so much to advance this department of our profession, even the classification of Bielt may be simplified, and thus improved.

Our diagnosis of the external characteristics of cutaneous diseases, is made through the medium of the *sight*, *touch*, and *smell*. With the *eye*, we examine their contents when fluid, whether serous or pustular, their colour, and the effect of pressure on them, the nature and degree of the surrounding inflammation, the peculiar character of the scabs, their form, and the different changes and

modifications which they undergo, and the marks or scars which they leave.

The *touch* enables us to determine their solidity, their greater or less induration, and their extent beneath the surface, as in *papulæ* and tubercles.

The *smell* warns us of the approach of gangrene, and their is one form of disease, affecting most commonly the head, which has a characteristic and peculiar odor.

The first step in diagnosis, is to determine the *elementary* form of the disease—this is, whether it is a collection of serum or of pus, an indurated point, &c.; and when this is unchanged, its character is usually ascertained without difficulty, and it is thus brought within comparatively narrow limits. We have then only to distinguish it from others of the small number, having the same elementary form. When not found on the spot itself, this elementary form may often be seen in its immediate neighborhood.

Sometimes the primitive form is almost and perhaps entirely obscured by the natural progress of the irruption, or destroyed by the irritation of the clothes, or of improper applications, or by accidental complications—but in chronic cases, a close examination will almost always detect the original form of the disease, in, or about some of the spots. Sometimes, however, we are obliged to wait until an exacerbation of the disease reveals it to us by its re-appearance, and, in some cases, in the progress of cure, either spontaneously or by art, they divest themselves of their accidental characters, and again exhibit themselves with more or less decided marks of their original nature.

But sometimes no traces of the elementary form are left, and we are then obliged to found our diagnosis on the secondary forms which they assume, as the nature of the discharge, the character of the scabs, ulcerations, scars, &c. Scabs do not constitute a proper basis for classification, but they often aid us materially in our diagnosis, as different varieties of them invariably follow different forms of disease. They must be studied in relation to their manner of forming, their shape, size, color, thickness, and adherence. Discolorations and scars also assist us very much at times, all of which I could illustrate by reference to particular instances, did time permit.

The previous history, or the accompanying symptoms, or both, also frequently throw light on obscure cases, as in syphilis more particularly, as does also the peculiar diathesis in some cases, as in scrofula, &c. There is, too, sometimes, an assemblage of symptoms which will decide a doubtful point, which the symptoms and appearances, taken individually, might perhaps leave unsettled; and in many forms of one set of cases, more particularly those dependent on venereal infection, there is often a kind of *pathological physiognomy* which the practised eye recognises at first sight, especially in children; and I need hardly say to you gentlemen, that we require the aid of all the means which can be brought to bear, to enable us to ferret out some of the variety of cutaneous diseases, in their many forms and Protean changes.

When the order to which the particular case belongs has been decided, its generic character must next be determined, which is done by studying its cause, its seat, its distribution over one or more parts of the body, the arrangement of the individual spots, its mode of progress, its duration, its color, &c., &c.; the age, diathesis, and habits of the patient, the accompanying local symptoms, and the preceding or accompanying general symptoms.

Its genus being established, we next proceed to bring it within still narrower limits, and to learn its species, which will be governed by some of the less important circumstances in the preceding list. The varieties depend of course, on differences still less marked, and most frequently of little or no practical value.

I will trespass no longer on your indulgence, than to give you a single instance of the mode of conducting the diagnosis of these diseases. A patient for example, presents himself with an eruption on his hands and fingers, which after examination, you find to be a vesicular disease, the vesicles being still unbroken. You turn to your classification, and find that there are five genera belonging to the order of vesiculæ. We will suppose in the instance before you, that the vesicles are small, flattened, surrounded by little or no inflammation, with some tendency to arrange themselves in clusters, but without any regularity, that they are attended by a burning sensation, &c., &c. On further examination you find that

'miliaria,' is attended by constitutional symptoms, and by more or less sweating, and that it is more frequently symptomatic of some other affection, that the vesicles have a different seat, and different mode of arrangement, &c., and you therefore exclude this form. 'Varicella,' or chicken-pox, has characters so different that you reject that at once. 'Herpes,' you find to consist of large globular vesicles, regularly grouped, and resting on an inflamed base, and presenting one or more patches, separated from each other by intervals of sound skin; which does not correspond with the facts in the supposed case. You next come to "scabies," and the only question now is, whether the supposed eruption is eczema or scabies; and permit me to remark in passing, that no case evinces the importance of a correct diagnosis to a greater degree than when the question lies between these two diseases; a correct decision enabling us at once either to relieve our patient of the associations and apprehensions connected with scabies, when it does not exist, or to guard against its communications to others, and to proceed at once to its cure, when it is found to be present. On comparing these two diseases, we find that, in eczema, the vesicles are small, flattened, that when abundant they have a tendency to partial and irregular clustering, without often assuming regular forms; in scabies, they are acuminated, scattered, more frequently seated between the fingers, and about their roots; in eczema, there is a sensation of burning, which is aggravated by scratching, while the itching of scabies is relieved by this process. You also examine the history of the case, and find perhaps some local or constitutional cause, and perhaps some predisposition to this form of eruption, while, on the other hand, you cannot learn that, in the present case the disease can be traced to contagion, or has been communicated to any one. You therefore conclude that your patient has eczema. The general mode of proceeding is the same when you have only the secondary appearances to guide you in determining the particular class, but I cannot at present enlarge on this point."

On the Treatment of Croup by Calomel and Alum. By M. MIEUPEL.—In a letter addressed to the Medical Society

of Inde-et-Loire, M. Miguel of Torres has given some important details of the result of the method of treatment which he employs in diphtheritis.

He relates that, about twelve years ago, a little girl, seven years old, having been simultaneously seized with angina and croup, he proposed to perform the operation of tracheotomy which was objected to by the parents. Being thus deprived of the last resource of art, he alternately administered to the child, every hour, two grains of calomel and three grains of alum. This treatment was continued a week, and produced no purgation nor salivation. Since this case, M. Miguel has treated twenty-six cases of croup, only three or four of which were doubtful; and only five cases have been fatal. He attributes the efficacy of his method to the mercury; but as it is liable to produce salivation and other disastrous consequences, these must be prevented; and M. Miguel thinks he has attained this object by combining alum with calomel.

He thinks that when the calomel and alum are alternated, the latter serves to circumscribe the mercurial action, which should also be well watched, so that the administration of calomel may be suspended on the least appearance of mercurial intoxication.

Remarks.—The treatment of M. Miguel is founded on the property which is attributed to mercury, diminishing the plasticity of the blood, and opposing the formation of false membranes. The important point is, that this treatment has proved successful in a certain number of cases. It should be known also that such treatment will not supersede the necessity of emetics and of energetic cauterization, when the disease has commenced in the pharynx. In such cases mercury alone is useless; it may be prescribed, but the local treatment is that which must be chiefly depended on, to arrest the progress of the disease. Of this we saw a remarkable instance some time ago in the practice of M. Trousseau.

In this case, the diphtheritis had commenced in the tonsils, and had extended towards the larynx. On the first day of its appearance, an emetic of sulphate of copper was administered, and the back of the throat was well cauterized with fuming hydrochloric acid. This cauterization was repeated once on the next day, twice on the day following, and once on the subsequent day. At the same

time the patient took, in small quantities every quarter or half hour, a mixture of ten grammes of alum with the same quantity of honey. This is preferable to alum in powder, because the medicine comes into permanent contact with the throat and arytenoepiglottic cartilage.

In prescribing alum, M. Trousseau used it as an auxiliary to cauterization, not as a corrective to mercury, which he did not give during the whole progress of the case. From the third day there was a steady improvement; and on the sixth, the cough had lost its croupy character. The voice continued rather weak, which showed the existence of false membranes on some points. Cauterization was continued once a day, for two days, together with alum and honey: and the child recovered. This method of treatment is considered, by M. Trousseau, to be most certain which can be employed in cases of croup.—*Journal de Méd.*

Employment of Baths containing Oil of Turpentine. By Dr. T. SMITH of Cheltenham.—Dr. Smith recommends the employment of alkaline camphine or turpentine baths in chronic rheumatism, lumbago, sciatica, gout, and other affections. He says:—I have employed camphine in the form of a bath, mixed with common soda; or two pounds of the latter with from a quarter of a pint to half a pint of camphine, and half an ounce of oil of rosemary, will form an excellent bath. In delicate, skinned patients, females and children, two ounces of camphine will be sufficient. I may remark, *in limine*, that the alkaline camphine bath possesses virtues peculiarly its own. In the coldest day in winter, as I have verified in more than one instance, it may be employed with the most perfect safety. Whilst the individual is in the bath, he experiences to my knowledge, no disagreeable annoyance from the disengaged vapour; on the contrary, if we except the taste of turpentine, which for some time remains in the mouth, a sense of calmness and tranquillity very often follows a previously disturbed, irregular, or excited condition of the respiratory or sanguiferous systems. After five minutes recumbency in the bath, the pulse is found to become fuller, softer, and slower: I have seen it fall from 100 to 80. The respiration also becomes freer, deeper, and less labored.

On coming out of bath the whole skin has a peculiar velvety, soft, and agreeable feeling: the breath is strongly tainted with the terebinthinaceous odour. If it has not been too hot a pleasurable tingling warmth is experienced throughout the whole cutaneous surface; and this, with the preceding symptoms, may continue twenty-four hours. One great advantage of this bath will be found in the circumstance, that it may be employed at a heat from 10 to 15 degrees below the temperature of the ordinary warm one without including that sensation of chill to which some delicate constitutions are so peculiarly obnoxious; ten or fifteen minutes is the length of time a patient ought to remain in a bath of this description. In the first instance, it is well for patients to commence with a smaller quantity of the turpentine and soda—say a pound of the latter with two or three ounces of the former, and gradually increase its strength on each repetition of the bath to the first mentioned proportions. This bath may be taken every second or third day, according to the urgency of the symptoms and the nature of the affection for which it is prescribed.—*London Med. Jour.*

Necrosis of Lucifer Match Makers.

—In a former number (Oct. 2nd, p. 556.) we gave an abstract of some observations on this intractable malady by Dr. Bauer; the same subject has more recently been investigated by Dr. Lorinser, who considers that the maxillary disease is merely a local manifestation of a general cachexia, which is further indicated by the pallid countenance, bronchitis, diarrhoea, arthritic pains, and other symptoms. The first symptom of the maxillary disease is swelling and tenderness of the lower jaw; osteophytes or exostoses are then formed, consisting of porous masses, of a dirty-green colour. As the disease progresses, these become more compact. In the meantime pus forms, the periosteum becomes detached, and the bone dies. In favourable cases the dead bone becomes encased in a new shell.

Dr. Lorinser disapproves of resection of the diseased bone, on account of the difficulty of determining its extent. He prefers entire removal of the jaw. (Of course he counsels the abstraction of the patient from his unwholesome trade.—*London Journal of Medicine*, from *Zeitschrift der K. K. Gesellschaft der Artz der Wien.*

On the reciprocal influence of Pregnancy on Phthisis. By Dr. A. GRISSELLE.—We extract the following article from the *London Journal of Medicine*, in which it has been translated. The author observes:—It is generally held that if a consumptive patient becomes pregnant, the pulmonary disease is retarded; but that after delivery the disease proceeds more rapidly. M. Andral, however, in his *Clinical Medicine*, states his belief to the contrary in the first edition, but admits, in subsequent editions, that a suspension of the disease may take place. M. Louis has not determined the question satisfactorily to his own mind.

Having met with seventeen cases of pregnancy developed during pethisis, and being furnished with notes of ten others by Louis, I have thought myself in a position to elucidate, if not to solve, the question. Phthisis did not appear under the same conditions in all cases. In twenty-four, the organic disease commenced during pregnancy, at a period more or less near its commencement, while, in three, the rational signs of tubercle already existed, and the disease did not manifest itself till a later period. In none of these was the pulmonary affection retarded; on the contrary, it made rapid progress.

It would be important to have a large number of equally well-marked cases,—but they are rare. When, indeed, we reflect on the influence which pulmonary tubercles exert on the constitution, as well as the uterine disorders which so generally supervene at an advanced period of the disease, we can understand why conception should be rare in phthisical women. In almost all the cases in which phthisis coexists with pregnancy, it is found that the latter has occurred first, and that it is in a more or less advanced period of its course that pulmonary tubercles have suddenly manifested their presence. These facts are very important, as showing that there is really no antagonism between pregnancy and phthisis; but the subsequent progress of the affection proves also, that gestation has neither modified the symptoms, nor exercised any tardative effect on the pulmonary lesion. In fact, the symptoms of tuberculization, whether local or general, are developed in the same order, and with the same regularity and constancy, in women who have become phthical dur-

ing pregnancy, as in those who have contracted the disease under ordinary circumstances. On the other hand, pregnancy has not increased the violence or frequency of certain accidental symptoms of phthisis. It might be thought, for instance, that the abdominal distension would render the dyspnoea more painful, and hæmoptysis more frequent; but it is found that the bronchial hæmorrhage, far from being more common, is even somewhat less frequent in the females of whom I speak than in the phthical patients, aged from 19 to 40, whose cases have been analysed by M. Louis. The progress of the disease has then progressively increased in all the cases; and its total duration has been diminished rather than augmented. Thus, in all, the disease has terminated from the eighth to the fifteenth month from the commencement of the symptoms; its mean duration has been nine and a half months, which is lower than in an equal number of non-pregnant females of a similar age. But what is still more conclusive, this average of duration is lower than that which M. Bayle, and especially MM. Louis and Andral, have laid down as the mean period for the working class.

We are hence led to conclude, that pregnancy cannot exercise that tardative power on the progress of phthisis, which is attributed to it. Instead of tending to prolong life, pregnancy hastens the progress of the organic lesion; and, indeed, we cannot understand how it should be otherwise, for the system, weakened by diarrhoea, by nocturnal sweats, and by expectoration, and incessantly undermined by hectic fever, is not in a condition to support two lives. Various accidental symptoms also, often occurring in the course of pregnancy, and increasing the sufferings of the patient, oppose a further obstacle to nutrition, and must hence favour the progress of phthisis. It is scarcely correct to say, with the physicians whose doctrines I oppose, that during pregnancy all the organic activity is concentrated on the uterus, and that this organ prevents or retards disease in all the others. It is difficult to understand how this opinion has been so generally entertained. We could easily understand it, if pregnancy, without influencing the foundation and the progress of the disease, only rendered some of its principal symptoms less evident or more ob-

scure; but this is by no means the case; and, whether we consider the local disturbances, and the phenomena furnished by the different methods of exploration, or strdy the general and sympathetic symptoms, it is impossible to discover any essential difference between the phthisis of pregnant and non-pregnant women. The facts which I have analysed have been so similar and constant in their occurrence, that it is rational to consider the results furnished by them, as evidences of the correctness of my observations.

We have now to inquire whether, as is generally asserted, accouchement and the puerperal state accelerate tubercularization, and render the approach of death more speedy. I think that here also, the exceptions have been taken as the rule. Without doubt, a latent phthisis may suddenly become active, or a well-marked case of the disease may proceed more rapidly after the delivery; but the same fact is often observed in convalescence from various diseases, or on the occasion of certain organic changes or disturbances. If we see some phthical females die in a few days or a few weeks after delivery, either at the full time, or premature, it no less happens in those who, having arrived at the extreme limits of the last stage, worn out by hectic fever, by sweats, and by diarrhoea, die, as if exhausted by the last effort of nature to expel the fœtus. But, I repeat, such cases are rare. Thus, twelve females, some of whom, at the time of delivery, were in the second, and most in the third stage of phthisis, have continued to struggle, on an average, four months, against the progress of consumption; and in all, the symptoms have been those observed in ordinary cases. In three, out of ten phthical females, who were only in the first, or at the commencement of the second stage, the progress of the disease after delivery was slow; two only manifested a notable aggravation; while five, or one-half, showed in the general symptoms, and one even in the local symptoms, a sensible amelioration, so as to be able to leave the hospital, and resume their occupations. I must, however, add, that this amelioration was not sufficient to allow a hope of cure, or of the suspension of the disease for any length of time. It then results, that delivery and the puerperal state have not that influ-

ence on the progress of phthisis which is generally attributed to them; that, most commonly, tuberculization goes on as before, till death ensues; while sometimes, when the disease is less intense, it is more or less perfectly arrested.

It may now be interesting to inquire whether phthisis, in its turn, does not modify pregnancy, and produce certain important effects on the act of labour, on the sequelæ of delivery, and on the nutrition of the fœtus. It is incontestible that phthisical females have less chance of bringing their pregnancy to a successful termination than those who have not that tendency to abortion which we expect. Thus, out of twenty-two females who were carefully watched, three only aborted at the fourth and sixth months; three others were prematurely delivered at the eighth month; while all the rest went to the full term. In almost two-thirds of these latter, however, tuberculization had set in during the early months of gestation, and had induced extreme cachexia. In this point there is a great difference between phthisis and acute pulmonary diseases. In 1841 I pointed out that pneumonia in pregnant females provoked abortion or premature labour in more than half the cases in which it occurred. The facts which I have since observed have confirmed these results. This difference between an acute and chronic affection is naturally explained by the great constitutional disturbance produced by the suddenness and violence of the attack of pneumonia, while phthisis is slow in its development, so that the system seems to become accustomed to it, and is not so readily affected as by the sudden invasion of an acute disease.

The females to whom I have referred, suffered very slightly from labour pains in their delivery; excepting one, who was in pain for twenty-four hours, all the rest, even primiparæ, expelled the fœtus after three or four hours of very moderate suffering. The shortness of the labours may be generally explained by the smaller size of the child, but perhaps better by the diminished resistance offered by the weakened tissues to their distension. The children were, indeed, often weak and meagre; but in more than a fourth of the cases they were strong, their tissues were firm, their forms round, and their plumpness pre-

sented a striking contrast to the phthisical appearance of the mother. There is nothing very extraordinary in the fact, that women who have suffered severely during pregnancy, and have been almost constantly harassed with vomiting, are sometimes, notwithstanding their enfeebled state, delivered of well-formed and even strong children. But when the same thing occurs in females whose constitution has not been impaired by functional disturbances, but by one of those organic lesions which are the expressions of a diathesis, and which produce a most profound alteration of the nutritive function; when we see a fœtus live, and become normally developed in a body which is in a state of decay, and whose powers are irrevocably diminishing day by day, I confess that we have here one of those preservative acts of nature which we must admire without pretending to explain.

With the exception of a few patients who were in the last stage of phthisis, and who died in a few days or weeks after delivery, the lacteal secretion was established in sufficient quantity in almost all the cases. But one or two weeks, or a month at most, had scarcely elapsed before the flow of milk was considerably diminished, and even entirely suppressed. For however short a time lactation was prolonged beyond this, it had always the effect of sensibly aggravating the phthisis. This depended not only on the expenditure of nutritive material through the milk, but also on the additional fatigues to which women are exposed during lactation. This disastrous result is the less surprising, when we sometimes see the causes induce pulmonary phthisis in women who previously appeared healthy.

Suckling has also been very injurious to the children. The milk, being entirely serous, and deprived of nutritious matter, has soon excited copious diarrhœa; and the little patients, if not placed under the care of a nurse, have died in a few days with ramollissement of the intestinal mucous membrane. No tubercles have been found in any part of their body; and yet, how can we find circumstances more favourable to the development of these morbid products? These children, in fact, had lived in the uteri of females in the various stages of pulmonary consumption, and after their birth, had been furnished with insufficient, and probably deleterious aliment

—a double reason for the production of tubercles. Their absence, in these cases, arises from the infrequency of tubercles in the lungs before the first dentition. Those who have maintained a contrary opinion have mistaken the hepatization from a subacute pneumonia for tuberculization; but an attentive examination by the naked eye and by the microscope, have shown me that there is nothing common to these two states. These negative results of autopsies also demonstrate that the child when born seldom or never has the material germs of the malady, or miliary granulation, but only a special organic disposition, and an aptitude for their production in the lungs at a more or less distant period.

Such are the principal results at which I have arrived. We must conclude that it is rare for conception to take place in women labouring under confirmed phthisis; while in a pretty considerable proportion of cases, the first symptoms of pulmonary tuberculization occur during pregnancy, and especially in the first three or four months. Unfavourable hygienic conditions, mental afflictions, and misery, may appear sometimes to explain the development of the organic disease; but it is certain that, in most of these cases, pregnancy was the only change in the condition of the females which could be supposed to act as a determining cause. But pregnancy has not produced the disease; it has only put the predisposition in an active state, just as any other physiological or pathological change would act. Pregnancy and phthisis, having had a nearly simultaneous origin, have proceeded without appearing to influence each other, but I have proved, from a comparison of other facts, that the phthisis was rather more rapid than in the non-pregnant state. The unfavourable influence of pregnancy is also proved by the fact, that after delivery, provided always that the disease had not reached a too advanced stage, the organic disease is observed to be mitigated, or at least to remain stationary. On the other hand, pulmonary tuberculization does not modify, at least in a great majority of cases, the progress of pregnancy. This point has been already perfectly established by Desormeaux and Paul Dubois.

Such are the principal conclusions at which I have arrived. I do not offer

them as absolutely correct; for they must be supported by more extended observation. The uniform results, however, which my observations have furnished, under whatever aspect we view them, must lead us to hope that they will be confirmed by subsequent investigations.

SURGERY.

On Bubo.—Brasby B. Cooper, Esq. lays especial stress upon the importance of distinguishing between a Bubo arising from a virulent and one from non-virulent disease. He says: "Non-virulent bubo is that which attends simple gonorrhœa, and may be considered as arising from common inflammatory action, extending in the course of the absorbent vessels of the penis to the glands of the groin; this disorder is to be treated as phlegmonous swellings in other parts of the body, either by repellants for the purpose of preventing the formation of matter, or by fomentations or poultices to produce suppuration, when that termination seems to be threatened by nature. By repellent remedies, I mean those which have a tendency to repress the formation of matter, such as leeches and evaporating lotions; by means of these we may succeed in preventing suppuration; but there sometimes yet remains a permanent indurated condition of swelling which may excite apprehension in the mind of the surgeon as to its having been produced by a specific virus, a chancre existing within the urethra. A bubo of this kind may, however, result from a mere strumous habit; and if so, the hardness readily yields to the exhibition of iodine and iodide of potassium, and such dietetic rules as generally improve strumous constitutions; while on the contrary, if the hardness depends upon the action of a specific poison, a mercurial course is, in my opinion, the only safe mode of treatment.

A virulent bubo is marked by the same characteristic induration as a chancre itself, and the presence of this induration must inevitably give rise to the question of the virulent or non-virulent nature of the disease. The mere phlegmonous bubo has always a tendency to suppurate; while the virulent bubo on the contrary seldom manifests this disposition; and, therefore, its per-

manent hardness, uncombined with any symptom of suppuration, is a further proof of a virus having been the origin of a bubo. The virulent bubo goes on to ulceration; but even this is not conclusive, for strumous ulceration not unfrequently occurs in persons of a scrofulous diathesis; therefore, as Ricord observes, there is as much difficulty in forming a diagnosis between the virulent and non-virulent bubo as between the virulent and non-virulent sore; and he maintained that by inoculation, and by that test alone, can a certain conclusion be arrived at.

The same objections arise here as I have before described when speaking of doubtful sore, viz.: the difficulty of healing the factitious sore; nor, indeed, does it always occur, as Ricord himself acknowledges, that the sore produced by a virus invariably puts on the decided character of a virulent ulcer; so that indeed the same difficulties may still result in forming a just diagnosis as existed before the experiment was tried.

In my own practice, therefore, when the bubo puts on all the characters of a virulent or a specific action, I commence at once with the cautious administration of mercury, not unfrequently combining with it small doses of iodide of potassium, abstaining at the same time from the use of any local application to the ulcerated bubo, which might tend to conceal the characteristic appearance of the sore. If the mercury be producing the desired effect, the ulcerated surface of the swelling acquires a healthy appearance, indicated by the growth of soft red granulations, by the absence of any tendency to eversion of the edges of the sore, and by a general softness of the whole base of the tumor. Indeed the characteristics of the healing sore are as strongly marked as were the peculiarities which had before indicated its virulence. The mercury should be continued as perseveringly, until all induration has disappeared, as in the cure of a primary chancre, or secondary symptoms will be sure to supervene.—*Med. Gaz.*

On the Anæsthetic Influence of Co'd in Surgery. By Mr. NUNN.—Mr. Nunn has lately tested the proceedings recommended by Dr. Arnott, of Brighton, which consist in producing local anæsthesia by the use of refrigerating mixtures. The case was that of a young female, who

applied for the removal of a large crop of venereal warts. The excrescences depended from the whole of the labia minora, and surrounded the clitoris so completely that it was difficult to distinguish the meatus. Some were of considerable size, as large as a fig; others were smaller. Mr. Nunn applied little wedge-shaped pieces of ice to the necks of the larger growths, till they became perfectly blanched and cold, when he removed them with but little pain and hæmorrhage. The smaller ones were similarly treated, with the exception of one which was removed without previous congelation. In this instance the pain was excessive.—*Lancet*, August 31.

Strabismus.—Division of the Rectus by means of Lane's Knife made by Savigny.—Every improvement in surgery is interesting, and we eagerly seized the opportunity afforded us by the kindness of Mr. Gay of seeing this instrument used. It is a small curved bistoury, with a partially blunt point. The patient was a little girl. Placed under the influence of chloroform, Mr. Gay, having fixed the eye, introduced the knife by the under side of the rectus, and, holding it flat, passed it vertically on. Owing to its peculiar construction, it went close under the tendon, the point becoming prominent on the other side. On this the operator placed his finger, turning the knife up, when it cut its way out.—A second touch of the knife was required, whereupon the globe of the eye instantly resumed its normal position. As nothing can be more simple than this instrument, we sincerely wish to see it tried still further. Its advantages, we are given to understand, are, that from its construction, its point will pass through all the textures external to the sclerotic, but that no force can make it penetrate this membrane.—*London Med. Times.*

On the employment of Forced Flexion for arresting Hæmorrhage in Wounds of the Palmar Arch.—By E. DURWELL, Guebwiller (Haut Rhin.)—M. DURWELL prefaces a case of wound of the palmar arch by some general observations on the modes of treatment which have been advised in this accident, and points out certain known objections to each. The follow

ing abstract presents the chief features of the case, and M. Durwell's subsequent observations:—

A woman fell from a ladder, having a bottle in her hand. The bottle was broken, and fragments pierced the palm. M. Durwell, on arriving at the poor woman's cottage, found the palmar arch wounded; and he had no means of securing the artery. While controlling the hæmorrhage by pressure on the brachial artery, the following sentence in M. Malgaigne's "Anatomie Chirurgicale" occurred to his mind:—"The only points at which obliteration of an artery can be obtained by position alone, without the aid of external compression, are at the bend of the arm and knee—a fact which is of great importance in reference to the arrest of hæmorrhage." Acting upon this statment, M. Durwell immediately bent the arm on the forearm at an acute angle; the hæmorrhage was instantly arrested. Advantage was taken of the circumstance to effect a definite cure. The arm was retained in its flexed position by bandages, so that the pulsation of the radial artery was completely intercepted. The wound of the hand was treated as an ordinary wound, and for the sake of precaution, compresses were laid over the course of the arteries of the forearm. The cure progressed favorably. On the third day, as the patient complained of the restraint of the posture, the arm was slightly extended, and it was noticed that a small portion of florid thin blood oozed from the wound. The arm was restored to its flexed position, and in a short time the vessels and the external wound had perfectly healed.

In this manner a wound usually regarded as of a very serious character, was safely and speedily cured by a proceeding as simple and unobjectionable as has ever been proposed. It must be attended with success when employed in analogous cases, and, from its simplicity, should be tried in the first instance in every case. M. Durwell observes justly, that it would be rash to make a more general application of a single fact, as there may doubtless occur complications, rendering its employment impossible or unadvisable; but, at the same time, he adds that this principle may be found, by further experiment, to be useful on other occasions, for the obliteration of the popliteal and humeral

arteries. This principle he lays down in the proposition—"that in most arterial lesions of the forearm and leg, prolonged forcible flexion supercedes the ligature of the vessels."—*L'Union Médicale*.

MIDWIFERY.

Case of Lactation in a Male. By C. W. Horner, M.D., of Philadelphia. (Communicated by Prof. Dunglison.)—Dear Sir,—According to your request, I send the particulars of the case of lactation in an adult male. 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 twenty-third 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 Fairmont, where he now resides, it was in every respect like the other.—*Medical Examiner*.

New Vaginal Plug for Arresting Uterine Hæmorrhage. By Dr. GARIEL.—Dr. Gariel, of Paris, has constructed a new form of plug. It consists of a slim bag of vulcanized caoutchouc, of the size of a small orange, but capable, by insufflation, of being expanded easily to three or four times that volume.—In order to allow of its insufflation, a

slender tube, of the same substance, twelve or eighteen inches long, but with thicker parietes, is attached to the bag. The bag and tube weigh only one or two drachms. The small, soft, empty bag is easily introduced into the vagina, forming a very perfect plug, and, as we believe, one that may be found very effective and useful. A ligature or knot, thrown round the tube, retains the bag in a distended state. This air is allowed to escape before the withdrawal of the plug, thus greatly facilitating its extraction—a part of the procedure with the common sponge and other plug, that is generally accompanied both with some pain and difficulty. It has been successfully used in France in arresting hæmorrhages, both connected with labour and with diseases of the uterus.—A similar application of caoutchouc, as a simple and perfect vaginal plug, was, we know, made some time ago by Dr. Hamilton, of Falkirk.—*Journal de Médecine*, April, 1850, and *Monthly Journal*, September.

Anæsthesia in Hooping Cough. By Dr. CHURCHILL.—In his valuable work on the "Disease of Children," the author thus speaks of inhalation of æther and chloroform in hooping cough:—Soon after the discovery of the anæsthetic effects of sulphuric æther, it struck me that it would be likely to modify or suspend the spasm in hooping cough; and having a case under my care, I directed that half a drachm should be poured over the nurse's hands and held before the child's nose and mouth at the commencement of the fit of coughing. The effect surpassed my expectations; generally the paroxysm was shortened, often stopped immediately, and the duration of the disease was unquestionably diminished. Since this I have tried æther in fourteen cases and chloroform in six. In one or two cases no benefit ensued, in others great mitigation of the spasm, and in three almost complete relief when the æther was commenced at the beginning of a fit of coughing. In two-thirds of the cases, the course of the disease was much shortened.—*Diseases of Children*, p. 223.

Leaves of the Ricinus Communis as a Galactagogue and Emnagogue. By Dr. TYLER SMITH.—It appears from a paper read before the medical section of

the British Association, by Dr. M^rWilliam, that the leaves of the castor oil plant possess an undoubted power of exciting the action of mammary glands as well as of the uterine system. He tells us that the native women, when the milk is delayed, make a decoction of the leaves with which the breasts are freely fomented; the leaves are then thinly spread over the bosom and allowed to remain till all moisture is evaporated. The truth of this alleged property of the plant has been also tested by Dr. Tyler Smith, with leaves gathered in the botanical gardens of Chelsea, and several cases are reported from which we make the following selection:—

Mrs C., aged 24, had weaned her child about six weeks, but had still a little milk of a thin serous character. She commenced the use of the plant by bathing the left breast only, with a strong decoction of the leaves, which were likewise applied as above mentioned. After a few applications, the milk had become much more thick.

Mrs H. had weaned her child more than six months. On careful examination little or no milk could be discovered in either breast. The plant was used night and morning for four days. After the second application, thick milk like colostrum could be squeezed out from both breasts, which had become tinged. A leucorrhœal discharge was also produced.

When it is required to induce the catamenial discharge the patient is directed to sit over the steam from a decoction of the plant, and to bathe the vulva and thighs as well as the breasts.—*London Journal of Medicine*, October, 1850.

On the alleged frequency of Ulceration of the Os and Cervix Uteri—Speculum Practice. By Dr. TYLER SMITH.—Mr. Whitehead, of Manchester, in his work on "Abortion and Sterility," states that, of 2000 women whose cases he investigated on their application to the Manchester Lying-in Hospital, "1116 had the whites at the time the inquiry was made, and a considerable number more had suffered under a similar ailment at some former period. In 936, or eighty-three per cent., the discharge bore undoubted evidence of the presence of pus, or of sanies; and in some instances it was more or less mixed with blood." Mr.

Whitehead traces these discharges to "disease of the lower part of the uterus, this disease being found to exist in every instance;" and he further declares that "this lesion of structure constitutes the true pathological seat of leucorrhœa, and of all its associated phenomena." Dr. Henry Bennet states, in his recent work on "inflammation of the uterus and its appendages, and on ulceration and induration of the neck of the uterus," that of three hundred cases presenting "uterine symptoms," among the patients of the Western Dispensary, he found that "243 were suffering from decided inflammatory disease of the cervix, or its cavity; and that in 222, ulceration was present. Thus, in Mr. Whitehead's cases, in 936 out of 1116 cases of leucorrhœa, the discharge was purulent or ulcerative; and in Dr. Bennet's cases 222 out of 300, or more than two-thirds, were also suffering from uterine ulceration. Dr. Bennet states that the same proportions are preserved in the cases he has treated in private practice.

It is well known that this is widely at variance with the experience of previous observers in this country. Does this discrepancy arise from the superior modes of investigation adopted by the authors I have quoted, or does it happen from some misapprehension as to what really constitutes ulceration of the os and cervix uteri? Is there simply some mistake about the nature of ulceration, or is the difference explained by the more general use of the speculum?

Practising as a physician-accoucheur, I must get the same class of patients as those treated by Mr. Whitehead and by Dr. Bennet. I am in the habit of using the speculum in cases of obstinate leucorrhœa in married females, and I trust with a desire to observe truly and faithfully, but I do not myself find uterine ulceration,—at least, not what seems to me to warrant this term,—so frequently as Dr. Bennet, Mr. Whitehead, and some other gentlemen who have written upon the subject, in leucorrhœal cases, purulent or muco-purulent. I find inflammation, engorgement, induration, excoriation, patches of aphthæ, epithelial abrasion and granulation, often enough, but very seldom what I could call ulceration, in non-malignant and non-syphilitic cases.

After giving a quotation from Dr.

Bennet's description of ulceration, Dr. Smith says:—

If we consider excoriation or abrasion as genuine ulceration, probably no woman passes through life without suffering from this form of disease. In the virgin uterus, the circulation is frequently modified by the recurrence of menstruation, ovarian irritation, mental emotion, the varying conditions of the bladder and rectum; and its constitutional ailments, the vaginal and uterine secretions, in common with the other secretions of the body, are frequently depraved. Excoriation and abrasion of the mucous membranes are easily accounted for under such circumstances. Menstruation alone, in the turgidity of the uterus and ovaria, before the catamenial flow is established; in the exudation of blood from the surface of the uterus; and in the perforation of the peritoneal membrane for the elimination of the ovule from the ovary, trenches very nearly upon pathology. The slightest divergence from the ordinary functions merges into disease.

In married women, and those who have borne children, other prejudicial causes in addition to these are in operation: such are the mechanical irritation of coitus, the risk of lacerations of the os uteri during the passage of the child in parturition, and the state of the uterine orifice which obtains after labour, and the return of the organ to quiescence. After labour, the orifice of the uterus does not contract smoothly, so as to leave the os uteri regular and even, but it becomes puckered and contracted unevenly. In irritable conditions of the mucous membranes of the uterus and vagina, or in a morbid state of the uterovaginal secretions, these folds or corrugations are very liable to be chapped or excoriated, and I believe this is very often mistaken for ulceration. All these and other causes which I might enumerate, explain the frequency with which the os uteri deviates, in color, volume, and secretion, from the strictly healthy standard. In fact, we may compare the upper part of the vagina to the fauces, which is seldom found perfectly healthy in any subject who may be examined. Some of the indurations and enlargements of the os and cervix uteri appear to resemble enlarged tonsils, and, like them, to increase in size without any amount of active inflammation.

The granulations which are sometimes found surrounding the os uteri—which may secrete mucus or pus abundantly, and which may bleed on being roughly handled—are, I have no doubt, the result of inflammation; but they resemble *the granular state of the conjunctiva*, rather than the granulations of a true ulcer, the granular os uteri offering no edges or signs of solution of continuity, by which we might satisfactorily declare it to be an ulcer. The *granular os uteri* would be a more correct designation in such cases, than “ulceration” of the os uteri. Some of the so called ulcerations appear to be nothing more than patches of thickened epithelium, or portions of the os and cervix, from which the epithelium has been removed by acrid or irritating secretions. We can imitate this condition of the parts by the slight application of the nitrate of silver—sufficient to affect the epithelial covering, but not sufficient to injure the mucous membrane beneath.

It appears to me that we can neither receive the existence of excoriation or abrasion; granulation; or fungous growths; the secretion of pus or mucopurulent matter; as affording undeniable evidence of the existence of “ulceration” of the os and cervix uteri. We must try ulceration in this part of the body by the same tests which we apply to ulcers in other parts of the economy. We must look for a solution of continuity, with a secreting surface, separated from the healthy structures, having defined edges, everted or inverted,—for an ulcer, in fact, in the common pathological meaning of the term. We find ulcers having these characters in the air passages, mouth, stomach, intestines, bladder, and other mucous surfaces. There is no mistaking an intestinal ulcer after dysentery, and there ought to be no mistake about an ulcer of the uterus. Indeed, in the corroding ulcer of the uterus we unfortunately see that this organ is but too capable of taking on all the qualities of ulceration, in a degree only equalled by its extraordinary vitality, the organ being scooped out, or eaten away, in a comparatively short space of time. Cases are also met with in which the os uteri has been destroyed by the sloughing ulceration, and loss of structure, sometimes following the application of the more powerful caustic agents. We are, however, called upon

by the unlimited believers in uterine ulceration to admit that ulcerative disease may exist for years, in its common form, without any perforation, excoriation, serious loss of substance, or altered configuration. Whether we test the so-called ulceration of the uterus by ulceration occurring in other mucous surfaces, or in the uterus itself, under undoubtedly ulcerative disease, the distinctive characteristics are wanting in the great majority of cases; and they certainly are not found, unless I am most egregiously mistaken in the enormous proportion of 222 cases of ulceration to 300 cases of promiscuous uterine disease.

In all that I have said, I do not wish it to be supposed that I question the frequency of irritation, chronic inflammation, and subacute inflammation, in connexion with leucorrhœa. Recent writers would, however, treat leucorrhœa merely and solely as a symptom, not as an independent disorder. But I am well assured that it is often the disease itself, or at least all of it that we can appreciate; and that the irritable or inflammatory condition is excited secondarily, and mainly, by the morbid leucorrhœal secretion. Some change in the innervation or nutrition of the organ occurs, or it sympathises with a malady in some remote organ, and the secretions are consequently depraved. These depraved secretions irritate the surfaces with which they come in contact, and produce the visible signs of irritation or inflammatory action. We see these discharges sometimes inflame and excoriate even the integument, but we should never dream of saying that the inflamed condition of the skin was the essential part of the disorder. The same observation applies to the uterus. Thus it is not pathological, nor useful, always to consider leucorrhœa as a mere symptom; and the old plan of astringent injections, though sometimes mischievous, cannot quite be dispensed with; for in some, even profuse leucorrhœa, an astringent injection, by arresting the utero-vaginal discharges, does more than any other plan to soothe inflammatory conditions, or rather to suspend their causes.

Notwithstanding the use of the speculum,—notwithstanding the use of lamps and glasses, there is often considerable difficulty in ascertaining the precise

condition of the cavity of the uterine cervix, engorged as it is, and deep in color from irritation, or other disease, and from the interruption to the circulation in the uterine organs which is almost necessarily dependent on the introduction and expansion of the speculum within the vagina. But in the dead subject no such difficulties exist; and it might certainly be expected, since leucorrhœa is a malady so very common, that uterine ulceration would be frequently revealed by post-mortem examinations. The only case in which, so far as I am aware, post-mortem examinations have been conducted in considerable numbers, with special reference to the determination of the frequency or infrequency of ulceration of the os and cervix uteri, is at St. George's Hospital. For several years past, the condition of the uterus has been examined with great minuteness and accuracy in the dead subject at this hospital.

Mr. Pollock, one of the lecturers on anatomy at St. George's Hospital, informs me that for more than three years, during which he was curator to the hospital museum, he examined the uterus internally and externally in all the subjects in the dead-house. During this time upwards of an hundred women died in the hospital annually. In each case the uterus was laid open, and carefully inspected. Mr. Pollock only detected actual and unmistakeable ulceration in four cases. Of these, three were scrofulous subjects, and scrofulous ulceration existed in other parts of the body; and in one of them the ulceration involved the vagina extensively as well as the os uteri.

Mr. Grey, who succeeded Mr. Pollock as curator, informs me that during his curatorship he examined the bodies of 180 women, who had died of all diseases in St. George's Hospital, with a distinct view to ascertain the proportion of cases in which ulceration of the uterus existed. These examinations were also conducted with great care and minuteness. Out of the 180 subjects, distinct ulceration of the os and cervix was found in only three instances. Slight abrasions, discolorations, and granulations, were frequently observed; and this accords with the observations of Mr. Pollock. One or two other curators to St. George's Hospital, besides Mr. Pollock and Mr. Gray, have arrived at the

same results. It is only by pathological investigations of this kind that we can arrive at infallible results.

But, it may be asked, why bestow so much pains on proving that abrasion, excoriation, and ulceration, are not *ulceration*? Why dispute as to terms? Simply because a name rules treatment, and because the name of "ulceration" being first given, an heroic treatment, not without danger, is frequently resorted to where milder local applications or constitutional treatment would be equally efficacious. After Mr. Abernethy wrote his celebrated work on the Constitutional Treatment of Local Disease, his idea was pushed to its extreme, and local remedies were often most improperly neglected. Now, in all that relates to the uterine organs, the doctrines of Mr. Abernethy are in danger of being entirely refuted, and we are in some risk in utterly neglecting constitutional treatment, and of being entirely absorbed by local applications. This we cannot do without impeding the improvement of the treatment of this class of affections. When a patient is told she has an ulceration of the womb, she often thinks of an ulcer of the leg, or the cheek, &c., and is proportionably frightened, because of the importance of the organ which is the seat of the presumed disease. There is nothing women will not submit to be freed from such a dire malady. At the present time a veritable uterine panic affects the upper and middle classes of society, and every woman with the slightest ache, or discharge, is not satisfied until the peccant organ has been ocularly inspected. I do not believe that this state of things, or its inevitable results, will conduce to the dignity and respectability of our profession. I do not hesitate to affirm, so far as I have eyes to discern and a judgment to weigh facts, that much exaggeration prevails respecting the frequency of this same ulceration of the os and cervix uteri,—an exaggeration which should be calmed, so that the legitimate methods of examination may lead, not to a suspicion of our profession, but to real improvement in the diagnosis and treatment of uterine disease as it actually exists. We cannot safely repudiate either the local or the constitutional treatment of uterine disease. I have seen cases in which the local ailments have been as far as pos-

sible cured; nevertheless, the constitutional symptoms remained unrelieved. I have seen others, in which judicious constitutional treatment has cured the local malady, without any topical treatment whatever. But in the combat against disease, we require both constitutional and local weapons; and any views which disparage either the one or the other must cripple the resources of our art.—*Medical Gazette.*

Influence of Ergot of Rye on Fœtal Life.—M. Danyau (in the name of a commission composed of M. M. Orfila, Adelon, Villeneuve, Merat, and Danyau) read a report in answer to a letter from the Perfect of the Seine, which therein sought the opinion of the Academy on the following question:—"What may be the influence of ergot of rye on the lives of infants, and on the maternal health?" This officer having observed an almost regular annual increase in the number of still-born children, and having been informed on medical authority that in a large number of these cases ergot of rye had been administered during labour, he was struck with the coincidence. Having also learnt that the same drug is extensively employed to produce abortion, he had thought it advisable to consult the Academy before having recourse to any stringent measures with a view to putting a stop to these evils.

The reporters observed that ergot should be used only, where to facilitate labour, the pelvis being large, the soft parts well formed, an inflammatory state absent, the dimensions and position of the fœtus normal, the os uteri dilated and soft, the perineum not offering rigidity,—the labour is prolonged from no other cause than the insufficiency of the uterine contractions. The reporters point out the evil consequences of the violation of these conditions, and state instances of the rash employment of ergot where one or more of them have been wanting or reversed. No careful or skilful practitioner, observe the reporters, will administer this drug until having satisfied themselves that all circumstances are favourable, and that other and simpler measures have failed, nor lose sight of the fact that the contractions induced by ergot are of a tetanic character, and capable of suspending the utero-placental circulation,

thereby inducing a state of asphyxia more or less complete. The state of the fœtal circulation after the administration of ergot affords an indication whether the labour should be permitted to be concluded by the uterine contractions or be terminated by the forceps. If the fœtal pulsations become either unusually frequent or slow, and at the same time irregular and feeble, the reporters state that the moment is arrived for extraction and that to leave the case to the expulsive powers of the uterus would be attended with fatal results.

With due precaution, under the vigilant control of a practised ear, the dose of ergot being moderate (*i. e.* 2 or 3 grammes, = 30–45 grs. Eng.), given at intervals of twenty minutes or half an hour, the reporters pronounce that ergot may be given with safety to the fœtus. The period of safety, however, is not of long duration; at most two hours frequently one hour's duration of the labour under the full influence of the drug is sufficient to produce evil effects; the practitioner should therefore be capable and fully prepared to extract without loss of time.

With reference to the second question—*viz.*, the influence of ergot on the maternal health—the report states that with a few exceptional cases no decidedly poisonous influences have been shown to be exerted by its obstetric administration. At the same time the report notices the accidents that have ensued to the mother from its improper or ill-timed exhibition, *e. g.* rupture of the uterus, and laceration of the vagina and perineum, the last being more frequently met with now, than formerly.

The reporters add, with regard to the production of abortion by ergot, that there is no reason to believe that it is capable of influencing uterine contractions before the full period, unless they have been previously excited by some other means.—*Medical Gazette.*

Uterine Neuralgia.—M. VALLEIX has pointed out a class of cases in which the cervix uteri, usually insensible, becomes the seat of the most acute suffering of a neuralgic nature, and has pointed out the diagnostic distinctions between these and cases of painful inflammatory congestion of that organ.

This neuralgic form of disease is fre-

quently met with, but is not often recognized. In all the cases which have come under M. Valleix's notice, the affection has been accompanied by pain following the course of the lumbo-abdominal nerves. He therefore, regards the neuralgia of the cervix as a part of the more extensive lumbo-abdominal neuralgia. This feature is of importance in reference to the diagnosis of neuralgia from other pains of the cervix uteri.

The subjects of this neuralgic affection present all the characters of sufferers from chronic uterine congestion, with which disease the former is nearly always confounded. The pain is much augmented at the menstrual period, producing dysmenorrhœa. The vaginal discharge which occurs in these cases is analogous to the increased secretion from the mucous membrane of the eyelids in certain affections of the trifacial nerve. They are both functional disturbances originating in disordered nervous influence.

Careful exploration is of the first importance to its detection. The neck of the uterus will be found tender to the touch, often so to a great degree, the tenderness being most acute at the sides of the cervix, while the anterior and posterior surfaces are free. The cervix is of its ordinary form and size.

On examining the abdomen and loins, a neuralgic pain will be detected in the hypogastrum a little beyond the middle line on one side, most frequently the left only. Along the course of the first pair of lumbar nerves will be discovered other points, more or less acutely painful, and more or less isolated. The painful point always corresponds with the seat of pain in the uterus.

The chief diagnostic features are, the degree and isolation of the tenderness, the intermittent character of the pain, and the occurrence of the neuralgia of the abdomen and loins.

The treatment adopted by M. Valleix has been blisters to hypogastric region, cauterization of the cervix, and narcotic injections with absolute rest and general treatment.—*L'Union Médicale*.

On the employment of Nitrate of Silver in Infantile Enteritis.—M. Duclos has found the nitrate of silver, administered in enemata, serviceable in acute or chronic colitis in very young infants, and its administration unattend-

ed with danger. It is equally beneficial in acute or chronic dysentery. Administered by the mouth and in enemata at the same time, it has exercised a favorable influence on the vomiting and diarrhœa of choleraic enteritis of infants. In short, M. Duclos states that he has obtained the best results from the exhibition of this medicine in acute inflammation of the mucous membranes throughout the whole length of the alimentary canal.—*L'Union Med.*

MATERIA MEDICA.

Poisoning by Sulphuric Acid; Death by Suffocation. By Dr. GULL.—On the 23rd of May, a lady was discovered dead in an hotel in London. She was seated by her bed-side, the head fallen back, the mouth full of tenacious mucus, lips, teeth, and gums bleached, face much disfigured by the acid. In the right hand was a small phial, labelled "Sulphuric acid—poison." Half a drachm remained in it. The acid had run over the face and shoulders, and the bed curtains were sprinkled with it.—As the attitude of the corpse was so easy, Mr. Parker, who saw her, concluded that she died suffocated upon the attempt to swallow the acid.

Post-mortem.—The face was bloated and charred by the contact of the acid. The tongue was greatly contracted.—The epiglottis was so eroded as to form but a small triangular process. The vocal cords were much destroyed. The acid had passed into both lungs and had escaped through the left into the pleura, dissolving it and the subjacent ribs, forming a crust of sulphate of lime. *No acid had reached the stomach.*—*Medical Gazette*, June 29th.

Poisoning by Savine.—An inquest has been held, by Mr. Baker, in Kingsland, on the body of a married woman named Harriet Cole, aged 34, when the evidence proved that death had been caused by her taking a decoction of savine leaves, to procure abortion. The drug had been obtained from a herbalist, whom the summoning officer stated to be in the habit of selling it daily. The coroner remarked, that there was no law to prevent a person selling it; but he thought some steps should be taken to check its indiscriminate sale, as a per-

son selling it might be liable to a verdict of manslaughter. The jury returned a verdict as follows:—"That the deceased died from inflammation of the bowels, caused by taking decoction of savine; and the jury cannot separate without expressing a strong opinion that great blame is attached to herbalists and others indiscriminately vending such articles."—*Prov. Med. Jour.*

Experimental Researches on the Woorara Poison.—M. BERNARD read the following as the results of experiments performed by himself and M. Pelouze on the woorara poison, prepared by the tribes inhabiting the districts of Upper Orinoco, Rio-Negro, and the Amazon:—"The woorara is a watery extract prepared from a plant of the Strychnos family. The poison acts instantaneously when introduced into the blood-vessels. A weak solution injected into the jugular veins of dogs caused sudden death, without producing cries or convulsive movements in the animal; the animal is, as it were, struck dead, and every trace of life vanishes as quickly as a flash of lightning. When introduced into a wound beneath the skin the poison acts more slowly, varying with the dose and the size or species of animal. *Ceteris paribus* birds die most speedily, then mammifera, then reptiles. In every case the signs of poisoning are similar,—the animal will move about as usual for a brief interval, and then lie down and die without a cry or a struggle. Immediately after death the nerves of the animals are as inert and insensible to stimulation as if the animal had been long dead and cold. The blood is black, and does not readily coagulate nor redden on exposure to the air.

The poisonous effects of woorara present a close analogy with those of the bite of the viper, and, like that venom, is innocuous when taken into the digestive tube. That its properties are not then destroyed by digestion was made evident from the experiment of inserting some gastric juice into a wound, forty-eight hours after the poison had been taken into the stomach: the usual poisonous effects were manifested. Thus the strange spectacle was exhibited of an animal carrying in its stomach a substance which in no way interrupted digestion, but which, if taken from its

stomach, is capable of inflicting death upon itself or any other animal.

This fact was explained by the discovery that the woorara is not absorbed from the alimentary mucous membrane. So long as the mucous membrane retains its integrity the woorara solution does not pass through the endosmometer. Other mucous membranes present the same results with the woorara; those of the bladder, nasal fossae, and eyes, were experimented upon. The pulmonary mucous membrane presented the only exception. A few drops of the solution introduced into the air-passages produced the same morbid effects, and the same rapidity of death ensues as if it had been inserted beneath the skin. This exception is referred by M. Bernard to the circumstance that the mucous membrane of the lungs has not the same mucous secretion as is supplied to the other mucous membranes.—*London Med. Gazette.*

On the Diffusion of Iodine—Göitre—Researches on the Constitution of certain Waters.—M. CHATIN, who has been for some time past engaged with investigations on the existence of iodine in cresses and other fresh water vegetables, has presented another long communication to the Academy, having for its object to show the general diffusion of iodine throughout various departments of nature, and especially in fresh water and the plants which vegetate therein. M. Chatin has ascertained the presence of iodine in aquatic plants, not only of European growth, but in those of Asia, Africa, America, and New Holland, shewing the general diffusion of this body on the surface of the earth. He also finds that the ashes of vegetables which grow out of contact with water do not contain iodine. Hence M. Chatin derives the inference, that the state of the globe at different epochs may be deduced from an analysis of the ashes of the vegetables then produced. Thus, for instance, coal rich in iodine would be the produce of vegetables which flourished whilst the waters covered the surface of the earth: anthracite, containing a less proportion of iodine than coal, would show that its formation was derived from an admixture of terrestrial plants with the great cryptogamous plants of the coal formation, and therefore at a period subsequent to

the appearing of the dry land; whilst the lignites, which contain little or no iodine, indicate their formation to have occurred during the present condition of our globe. Iodine reappears in the ashes of peat, the modern detritus of the stunted vegetation of our marshes and bogs. Graphite, from the large proportion of iodine which it contains, would appear to claim a place amongst the productions of an organic and aqueous origin, representing the vegetation of a period long anterior to the coal formation, and probably the first which appeared on the surface of the earth after it had become cooled.

The animals which live in fresh water were found by M. Chatin to contain iodine, and in larger proportion than the plants grown under the same circumstances. M. Chatin is of opinion that the richness of waters in iodine may be correctly deduced from the amount of iron they contain: so that the waters to which we apply the term *ferruginous* may also be called *iodureted* waters.—The waters of volcanic formations appear from M. Chatin's researches to contain more iodine than the sedimentary strata. The waters containing much lime and magnesia salts usually show but slight traces of iodine. The usual form of the appearance of iron in these waters is that of *iodide of iron*.

Iodine exists also in some terrestrial plants and animals, especially in plants frequently watered. The salts of soda, potash, and magnesia, as ordinarily met in commerce, almost always contain appreciable quantities of iodine. Fermented liquors are found by M. Chatin to contain iodine, but in less proportion than the mean of fresh waters. Wines also contain iodine, varying in quantity according to the variable nature of the soil producing them. Milk is richer in iodine than wine, and asses' milk contains more than the milk of the cow. The quantity of iodine appears to be in an inverse proportion to the abundance of that secretion. Eggs are extremely rich in iodine. A hen's egg of the weight of $2\frac{3}{4}$ ounces contains more iodine than a quart of milk, or than two quarts of wine or good water.

Iodine exists also, according to M. Chatin, in arable soil, in sulphur, the ores of iron, in peroxide of manganese,

and in sulphuret of mercury. M. Chatin considers it very probable that the want of iodine, or its existence in too small a proportion in the waters employed in different countries for domestic purposes, is the principal cause of *goutte*, and recommends the employment in cases of this affection of such diet as is found to contain a somewhat large proportion of iodine.

As somewhat in connection with the above, we may mention some recent researches of M. Maumené on the water of Rheims. M. Maumené states that he is unable to find the least trace of magnesia either in the waters or in the soil: and to this want of magnesia in the water he attributes the almost universal prevalence of the *goutte* in that city, there being but few families in which one or more persons are to be found exempt from this affection.

In his investigations on these waters, M. Maumené notices a fact somewhat opposed to preconceived opinions; it is, that water containing sulphate of lime is not always decomposed by soap. His experiments go to prove that all the salts of lime, without exception, may exist in somewhat considerable proportion in water which does not contain other salts, without producing a deposit on the addition of soap: the maximum limit he finds to be about 10 grains of sulphate of lime, $6\frac{1}{2}$ grains of chloride of calcium, and ten grains of nitrate of lime, each, in one quart of water. Carbonate of lime would at first sight appear to prove an exception; but the addition of soap produces only an opacity up to a certain limit, beyond which, a deposit takes place. M. Maumené considers that the insoluble carbonates do not exist in water in the state of bicarbonates, as has generally been supposed. If the carbonic acid influences the solubility of these carbonates, it is not, he considers, by reason of any chemical action, but simply in virtue of a dissolving force. Carbonic acid is not the sole agent in the solution of the carbonates; there are certain salts which have the power of destroying this insolubility. Hence he concludes that in natural waters the carbonates are dissolved partly by the action of carbonic acid, and partly by the action of other saline substances.—*London Med. Gazette.*

ANATOMY.

Physiology of the Heart.—M. FATON transmitted an essay containing his researches on the sounds and movements of the heart. The following are among the chief conclusions at which the author had arrived:—

The entire volume of the vascular system of the thorax undergoes no sensible change from the play of the different parts of the heart whilst that organ performs one complete beat; the heart itself undergoes but little change of form or situation by the contraction of its different parts. The changes in the capacity of the auricles and ventricles result principally from the displacement of the auriculo-ventricular septum, which is more extensively displaced than either of the walls of the heart during its movements. The dilatation of the cavities results from the antagonism of the fibres on each side of this septum, from the tendency to contraction in the lungs, and from the afflux of blood into the cavities, of the heart. The base only of the ventricles is displaced during their systole. The heart exerts the action of suction on the veins, by which it influences the circulation in these and the lymphatics. The heart and thoracic vessels are augmented during inspiration, and diminished during expiration: the respiratory movement contributes to the force and rapidity of the circulation of the blood. The rapidity of the circulation is not in relation to the frequency of the pulse. The venous blood continues to flow into the heart during the contraction of the auricles. Expiration produces no reflux in the retrograde course of the circulation. —*London Med. Gazette.*

On the Influence of the Fifth Pair of Nerves on Vision. By Dr. SROKALSKI. The first branch of the fifth is generally considered as exclusively a nerve of sensation, it is interesting, therefore, to inquire why filaments of this nerve are distributed to the muscles of the eye in conjunction with the nerves of motion. The author endeavours to decide the point in a work, of which the following are the conclusions:—

1. The fifth pair serves, by the branches distributed to the eye, to give us consciousness of the force and extent of the ocular motions.

2. By this consciousness we are enabled to judge of the size and direction of objects.

3. Sight does not depend solely on the retina, but on a combined action of the retina and the fifth pair.—*Archiv für Physiologisches, Heilkund.*

MEDICAL JURISPRUDENCE.

On the Post-mortem Appearances in Death by Drowning. By Dr. RIEDELL.

—The following are the results of a series of experiments by Dr. Riedell:—

1. The cadaveric rigidity does not occur more slowly than in other modes of death. This phenomenon is accelerated by high temperature of the water.

2. The accumulation of blood within the cranium was inconsiderable, and effusion of blood had not occurred in any case.

3. The epiglottis was constantly found erect.

4. The diaphragm was always found relaxed, its convexity being toward the thorax. The intestines were not pressed against the abdominal walls. The lungs were usually found in the condition of an imperfect expiration,—owing, doubtless, to the distension of these organs by fluid, the presence of which presented an obstacle to the collapse of the thoracic parietes.

5. In half the number of instances the two sides of the heart contained equal quantities of blood; in the other half the right side contained the larger proportion. In one case only the emptiness of the left side contrasted strongly with the fulness of the right. The quantity of blood in the liver varied greatly.

6. The bladder was some times empty and some times full. It was almost always distended with fluid in animals drowned in a state of stupor.

7. The blood in the heart and large vessels contained coagula, in autopsies made from two hours to five days after death. Coagula were found three quarters of an hour after death, in the heart of a cat drowned in boiling water (!), while in animals drowned in ice-cold water, the blood was still fluid and cadaveric; rigidity was absent.

8. In the majority of cases the fluid has passed into the stomach. In animals previously killed, and placed for twenty-four hours in water with the mouth wide

open, no fluid penetrated to the stomach.

9. In every case the trachea, bronchi, and lungs, contained a frothy fluid. This was a *constant sign* of death by submersion. After death, this frothy fluid gradually disappeared from the air-tubes by exosmosis, but not from the lungs. The fluidity of this froth is diagnostic of death by drowning, and is not met with in any other mode of death. Another equally important character was observed in the constantly flabby condition of the lungs which are dilated and preserve the impression of the finger on their surfaces. The lungs are also three or four times as heavy as natural. This diagnosis, however, is open to the objection that the same phenomenon may be produced by the forcible injection of fluid into the lungs.—*L'Union Médicale*, and *Medical Gazette*, Sept. 13.

Examination of the Dead for Judicial Purposes. Death by Drowning.

—BY DR. CASPAR.—There is at the present time scarcely any greater desideratum in medical jurisprudence, than a sure criterion for the determination of the fact, whether a person has been drowned, *i. e.*, has died in the water. The best authorities differ widely in their decision of the question. How often is it disputed whether a person found drowned has died of apoplexy or strangulation; whether the frothy mucus found in the trachea be a sign of death from suffocation; what is the true value of the *cutis anserina*, the fluidity of the blood, and many other uncertain signs. From the examination of a great number of bodies of persons drowned, Dr. Caspar comes to the conclusion that no certain or constant signs are met with in death from drowning.

It may generally be admitted that a person has perished in the water, if no trace of apoplexy, or disease of the lungs, heart, or brains be present; if the blood be dark and fluid, the mucous membrane of the air-passages injected of a light red colour, the larynx and trachea containing more or less of a consanguineous mucus; if on particular parts of the body, more particularly on the shoulders and forearms, the *cutis anserina* be very distinct; and lastly, if, in addition to all these signs, there be added the negative evidence of the signs of any other mode of death. Putrefaction, however, often

vitiates all the proofs afforded by the state of the body. Both the condition of the blood itself, and of the internal organs, undergoes great change, and the state of the skin no longer affords any indication. Dr. Caspar's predecessor Dr. Wagner, observed the *cutis anserina* formed in several instances while the body was yet warm. This phenomenon is rarely met in men of dense strong fibre—as labourers, who during life have not a very delicate skin, and in whom after death the integuments exhibit a carneous state. Where putrefaction has proceeded to the elevation of the cuticle in vesicles, *cutis anserina* cannot be present. In nearly all putrefied bodies, the proof of drowning can only be established on negative evidence.

The following cases are related by Dr. Caspar, in illustration of his observations:—

The dead body of a child, two years of age, was found in the water. There was slight congestion of the brain. No water was found in the trachea or bronchi, although the glottis was open; the lungs were exsanguineous, and the cavities of the heart were absolutely empty: there were no indications of either apoplexy or suffocation. The blood was of a light red colour, and unusually fluid. The stomach was filled with water, in which floated fragments of meat. No signs of any other mode of death could be discovered, and therefore from their absence, rather than from any positive proof afforded by the examination, the probability of death by drowning was admitted in this instance. The unusual circumstance of the stomach being filled with water was afterwards explained. The child had been playing on a hot summer's day at the water's edge, and being thirsty the nurse had given it a large draught of water, which was drunk with eagerness. The nurse left the child for a short time, and on her return found that the infant had fallen into the water and was drowned.

The following case is here introduced chiefly for its singularity:

A servant girl disappeared on the 21st of March, 1841. It was reported that she was pregnant, and her disappearance was considered not to be accidental. All search proved unsuccessful, and the case was almost forgotten, when, in

December of the same year, nine months afterwards, the cess-pool of the house being emptied, the workmen found a putrid human body therein. It was immediately suspected to be the body of the missing servant-girl, and a judicial inspection was forthwith ordered. Dr. Caspar states that he had never seen a corpse in a higher degree of putrefaction, as might be supposed after nine months' maceration in human excrement. Even the hardened attendant of the dissecting-room experienced nausea from the indescribable stench which this corpse occasioned.

The skull, the lower jaw, the lower extremities, were for the most part denuded of their soft coverings; the ligaments of the joints were partly exposed; the external sexual organs were not recognisable; what soft parts remained were converted into greyish black shreds. To the question, put officially, whether it was not possible to ascertain the fact of pregnancy in this case, Dr. Caspar answered affirmatively, provided that the rudiments of a fœtus were discovered in the uterus. The abdomen was opened for this purpose. The muscles were found converted into adipocere, and the intestines were changed into a greasy mass, in which it was impossible to distinguish the parts or form. The uterus was of a bright red colour, hard to the feel and to the knife, of the virgin size, its form perfectly distinct and normal, its cavity empty, and corresponding to the virgin condition.

Although in this case nothing positive could be stated in reference to the cause of death, it could be affirmed in court that at the time of death the person was not pregnant, thereby removing the unjust suspicions which had been attached to her memory, and to the character of another respectable person, since the girl's disappearance.—*Caspar's Wochenschrift*.

Trial for murder by poisoning with corrosive sublimate—Kilkenny Summer Assizes.—[The subjoined case is of great interest in medical jurisprudence. The mode in which the medical evidence was given is highly creditable to the gentlemen engaged as witnesses for the prosecution.]

Michael Walsh was charged with the murder of Simon Power, a bailiff hold-

ing a distress warrant on his premises on the 30th August, 1849, by administering to him a deadly mercurial salt in whiskey. The prosecution was conducted by Messrs. Scott and Sausse; and the prisoner was defended by Messrs. Harris and Armstrong.

The general evidence for the prosecution established that the prisoner asked the deceased and a witness, Murphy, to take some whiskey. Murphy felt a pain in his stomach after swallowing about a tea-cupful, which was poured out for him by prisoner. In about *ten minutes* afterwards, prisoner called the deceased to him, and according to the evidence, the deceased must have taken a cup of whiskey, while alone with the prisoner.

In a few minutes, he became sick, and although able to walk home with Murphy, he was very ill. Murphy deposed that he did not perceive anything remarkable in the *taste* of the whiskey which he swallowed. The condition of the deceased (Power) is thus described by his daughter.

Anastasia Power examined—I am daughter of Simon Power; I remember his coming home from being keeping at the prisoner's; he came at six in the morning with James Murphy; he was vomiting; he went to bed; he continued very bad during the whole of that day; the vomiting continued until he died, in fifteen days afterwards; Dr. Boyd attended him a week after he was ill; he was often sick and vomiting during that week; he was not able for that week to go about his business: every bit of him was sore; his mouth was sore and scalding, and the flesh inside his mouth came away when he was spitting; I could pull out the flesh and it was black; his teeth were also black; the odour of his breath was most offensive; the water from his mouth was green and thick; it was often coloured bloody; he complained of pains cutting him in the bowels; and of pains in his head; before he died lumps of lard came from his stomach; the day he came home his cheeks were yellow: after some time his head and cheeks swelled up and became red; the middle of his tongue was white, and the borders red; he would start up when asleep and bawl as if in a fright; the first week his feet were warm and sore, and they got cold last week. *Cross-ex-*

amined—My father ate his supper on the night of Wednesday before he got sick; he ate peas for his supper: he never went about his business after that Thursday, *Re-examined*—The supper of peas was a usual one.

To the Jury—My father had never had all those symptoms before; (he also had purging mixed with blood).

To the Court—During the first week he never went out; he never could have gone to Walsh's ground to keep.

Surgeon Boyd examined—I attended Simon Power; I saw him on the 6th of September; I prescribed for him on the 3rd for a sore mouth; I found him lying in a bed on the ground with a profuse flow of saliva from his mouth, with a most disagreeable odor; his tongue very much swollen, and partly protruding, indented at the sides and thickly coated; the gums were ulcerated, mouth generally swelled, with several whitish stains on it, with ulceration of the palate behind the teeth; the face was swollen and red; he complained of great inability to swallow; he could not eat, and spoke with difficulty; his pulse was excited; I got him taken out of bed to examine his body to see if he had been rubbing his body with ointment; I could detect nothing; I asked him if he had been taking medicine; he said not, but that that day week he got something from the prisoner in whiskey that was not right—that immediately after getting the whiskey he became sick—that he was not able to remain that day; that off and on he was in that day; that on swallowing the whiskey it had a queer burning taste, and felt a burning in his mouth and throat: that about the third day his mouth became salivated and continued so; that he had a pain in his stomach; the chief pain he complained of was about the mouth and head, and he had never used any mercurial preparation, except four years before when he was in a fever; that he had frequently drunk whiskey without any ill effects from it, and was in rude health before he took the whiskey; I saw him again on the 8th 10th and 13th; the salivation continued, but the vomiting not so frequent; he was weaker on the 13th; there was a flow of blood from his mouth on the 13th; from the symptoms I perceived I think he died from the effect of mercury; it could have been administered by an

ointment rubbed to the body, or by its being given in a drink; I consider it must have been administered to him in drink from what he had said. *Baron Pennefather*—You are at liberty to say from the appearances or non-appearances whether you think it was administered externally or internally. *Witness*—I believe it was administered internally: corrosive sublimate is soluble in whiskey, and would not colour the drink, or have any smell; it would have a dry caustic taste, like as if a man got a taste of lime when in a kiln; from the symptoms, and from what the man said, I believe he came by his death from corrosive sublimate taken inwardly; it is a deadly poison; I made a post-mortem examination in order to send the stomach and its contents up to Dublin to be analyzed; a portion of the stomach was also sent up; the liver, kidneys, and spleen were sent to him on a second occasion; I gave the first parts to Sub-Inspector Rogers, and the second to Constable Coghlan; they were sealed up in a jar; on opening the belly the peritoneum was healthy, but the mesentery was red; the inspection of the body gave me no additional evidence, but my object was rather to remove the contents to have them analyzed; there was a dull slaty appearance in the stomach, the consequence of inflammation; the longer the person lives the less appearances of the poison after death. *To Baron Pennefather*—I consider the man to have died from weakness, the corrosive sublimate interfering with the digestive organs, and also from hæmorrhage. *Cross-examined*—Cholera and dysentery were very prevalent through the country at the time; he was a stout, strong, well-built man, not likely to be affected by dysentery; I attended him for the mercurial salivation; the first effects of corrosive sublimate when given in large quantities are to produce a burning taste in the mouth, and vomiting; the deceased described as accurately as any medical man the effects which would follow the taking of this poison, and I was confirmed in my belief of what he had taken by finding an ignorant man describing day by day with the utmost accuracy what symptoms should follow the administration of corrosive sublimate; all the appearances could not have followed from the administration of bad whiskey, in

which there was inserted blue-stone and verdigris; the sublimate is very soluble in thrice its weight of spirit, and would leave no sediment if pure; verdigris has no mercury in it; three grains of sublimate have been known to cause death, but a drachm will kill several, and eight drachms may be dissolved in one glass of whiskey; one may take as much of the poison and escape from death that would kill three others; some are more susceptible than others of the influence of poison. *To Baron Pennefather*—If the sublimate was in powder still I would not expect it to have been so dissolved in ten minutes that the man would not see some appearances in the whiskey.

The information of Simon Power was then read, in which the deceased swore that he got the whiskey from the prisoner: that the whiskey was rough in his mouth, and had a shocking stinking smell.

Inspector Rogers and Constable Coghlan proved delivering the contents of the stomach, &c. to Dr. Geoghegan.

Dr. Geoghegan, Fellow and Profr. R. C. Surgeons, Ireland, examined by Mr. Sauss,—The medical history of the present case, as given in evidence, unequivocally establishes that the death of deceased resulted from poisoning by a soluble salt of mercury, and, by inference, that the compound taken was corrosive sublimate; the non-detection of poison in the various organs of deceased is not alone compatible with the fact of death from that cause, but in conformity with the laws which govern the elimination of poisons from the body. In the present instance the illness was of fifteen days' duration, a period quite sufficient for the escape of the offending matter by the organs of secretion, particularly the kidneys and salivary glands. Witness did not expect to discover mercury in the alimentary canal, but thought that traces might possibly be found in the organs which had appropriated it subsequently to absorption; the salivation produced by the soluble salts of mercury, may be of a two-fold character, arising either from their local influence on the mouth in the act of being swallowed, or from their absorption into the economy; the former is a spurious salivation, which may be immediate, and is occasionally accompanied by a fœtor of the breath; the latter is the true mercurial influence, which is usually mani-

festated after the lapse of a couple of days. *Cross-examined* by Mr. Harris—Corrosive sublimate is incapable of communicating any peculiar or fœtid odour to whiskey; a wine-glass full of the latter fluid, may in the course of a few minutes dissolve as much of the poison as would suffice to destroy life; on this point only, witness is unable to concur in the very intelligent evidence of Dr. Boyd. *To Mr. Harris*—I did not make any experiment on that point to reduce my opinion to a certainty.

Mr. Harris addressed the jury, and submitted that there was not such a case as would warrant the jury in arriving at the conclusion that the prisoner was guilty of the offence with which he stood charged. The Counsel adverted in detail to the evidence, and to the doubts which must arise as to the cause of death.

Mary Walsh, and another sister of the prisoner, and two men in the prisoner's employment were examined in detail, and their evidence was to the effect that the whiskey was given freely to the deceased and Murphy at the same instant, and that they did not leave the house for some time afterwards. The two men, Dwyer and another, also swore that the deceased vomited the day before he got the whiskey, and was on the ground for days after taking the whiskey. On cross-examination their evidence varied in many particulars.

Mr. Phayre, an apothecary, deposed to having made experiments as to the solubility of corrosive sublimate; and his evidence went to show *that it could not dissolve in ten minutes, or for a period much longer; but on cross-examination, said that in a few minutes the whiskey might take up a large quantity.*

Mr. Scott wished to examine Dr. Geoghegan who had, since being on the table, made an experiment at the request of the Counsel for the Crown.

Mr. Harris objected, but this being part of the Crown's original case, Baron Pennefather concurred in it.

Baron Pennefather charged the jury, who returned a verdict of Guilty.

Baron Pennefather was about to pass sentence, but after consideration directed that the prisoner should be removed and brought up next morning, (Friday.)

The trial was one of a very interesting nature as to its medical details, and the learned Judge, in the course of his

charge, after complimenting the Counsel for the manner in which they discharged their duties, also adverted in high terms of commendation to the clearness and ability with which Dr. Geoghegan, of Dublin, and Dr. Boyd, of New Ross, gave their testimony as to the cause of death.

* * * One question of especial interest in this case was, whether a tea-cupful of whiskey, poured on corrosive sublimate, would in *ten minutes* dissolve as much as would suffice to destroy life.—Admitting the corrosive sublimate to have been in *powder*, the act of pouring would so agitate this as undoubtedly to cause the whiskey to take up a fatal dose; and if in lumps, the lumps would have been seen and have excited the suspicion of the deceased. Mr. Phayre, an apothecary who appeared for the prisoner, swore in his examination in chief, that the poison could *not* be dissolved by the whiskey in ten minutes, or even in a longer period; and although he professed that this very decided opinion was based on experiments, he did not hesitate to swear in his cross-examination that in a *few minutes* the whiskey might take up a *large quantity*! But for this open recantation, the fairness of Mr. Phayre's opinion might have been readily tested by Counsel requesting him to drink some whiskey which had been poured on powdered corrosive sublimate and allowed to remain ten minutes!

It appears to have been a refined piece of cunning on the part of the prisoner to give the whiskey at the same time to *two* persons, but to take care that the cup should be only fully poisoned to *one*. This, with the non-detection of mercury in the body, might have overthrown the case, but for the convincing and judicious evidence of Dr. Geoghegan and Mr. Boyd.—*Medical Gazette*.

MISCELLANEOUS.

Homœopathia.—Anecdote.—We copy the following from a communication in the New York Medical Gazette:—

We conclude our notice of Homœopathy by relating an incident of sober truth, which not long since is said to have occurred at the Springs, and only withhold the name of our informant, and of the watering place, that the parties may not be recognized. A merchant

in a neighboring city, whose business brought him in contact with the article called "Pearl Barley," filled his vest pocket with a handful of the grains when about to leave home, and amused himself by chewing them on his journey. On his arrival at his hotel at the Springs, he found a number of invalid acquaintances, who were wont to discourse on the merits of physicians, one of whom was a sturdy believer in Homœopathia, and loud in praises of the little pellets of sugar of milk. Taking from his pocket a grain of the Pearl Barley, he placed it upon his tongue in the presence of the company, and united his testimony to the value of these pellets, which the very fine grains he used closely resembled; he, moreover, informed them that he carried these treasures in his pocket, and could spare them to any who might have occasion to try Homœopathy. Very soon one and another of these invalids, ladies and gentleman, availed themselves of the courteous proposition, and applied to the merchant for one of his little pills, to each of whom he gave a grain of Pearl Barley, accompanied by an eulogy upon Homœopathy. In every instance the patients were relieved, and in some cases the effects were wonderful; so that the astonishing virtues of the little pills became the theme of continual conversation, and converts were as numerous as patients, so that the stock in the gentlemen's pocket was soon exhausted.—But at length the merchant broke the charm by announcing at the public table, in the presence of these restored invalids, that he had only humbugged all parties; that his little pills were only fine grains of Pearl Barley, of which a bushel might be had for a less number of shillings than it would take dollars to fee a Homœopathist. The result of this disclosure was most disastrous, like that of Dr. Haygarth's substituting painted wooden tractors for Perkins' magnetic metallic ones; for the patients forthwith relapsed by the return of all their maladies, and before sundown the Homœopathic cures exploded.

Homœopathic Statistics.—Very erroneous impressions obtain, to some extent, respecting the diffusion of the homœopathic delusion in other countries.—It is thought by some that this mode of

practice has secured a permanent foothold in Europe. This is asserted as an inducement for the credulous to become converts to the doctrine, the tendency to follow in the wake of European currents of opinion on some subjects being an obvious weakness of a portion of our countrymen. The following facts, communicated for the London Medical Times, exhibit the numerical ratio of homœopathy practitioners to the population, and the regular profession in Great Britain:—

1st. Of London.

The population of London amounts to about 2,200,000

The number of medical practitioners, practising in London, whose names appear in the "London Medical Directory," is 2,571

The number of homœopathic practitioners, practising in London, according to the accredited "list," in the *British Journal of Homœopathy* for January, 1850, is 48

Of these 48 homœopathic practitioners, 22 are *not* in the *London Medical Directory*, at all; and of the 26 which remain, 10 are graduates in medicine, and 16 are surgeons or surgeon-apothecaries.

Of the ten graduates, 6 appear to have the Edinburgh degree, 1 Aberdeen and Paris, 1 Aberdeen and Turbinger, 1 Aberdeen, 1 Erlangen.

2d. Of the Provinces.

According to the *Provincial Medical Directory*, there are of medical practitioners, practising in the provinces 8,327

According to the "homœopathic list," already referred to, there are, of homœopathic practitioners practising in the provinces 52

Of these 52 homœopathic practitioners, 16 are *not* in the *Provincial Medical Directory* at all; 4 are in it, but their qualifications are not vouched for by the Editor of the Directory; and of the remaining 32 whose names appear in the Directory, 18 are graduates in medicine, and 14 are surgeons or surgeon-apothecaries.

Of the 18 graduates, 13 possess the Edinburgh degree, 3 St. Andrews, 1 Glasgow, 1 is an Est. Lic. Lon. Coll. Ph.

There appear, therefore, to be in England, about 10,898 medical practition-

ers; but suppose that we make a liberal deduction from this number of 898, as practitioners of doubtful license, and make the number of legalized practitioners 10,000 instead of 10,898; then out of this number appears the insignificant proportion of 28 graduates in medicine, and 45 general practitioners, who call themselves homœopaths, and who profess to practice as such.

By the foregoing statistics it is apparent that sugar pellets are not in very general repute in Great Britain. They are just now much more in vogue in this country. But the truth, probably is, that having travelled to England before visiting the United States, the system has had its day, and is now in the sear and yellow leaf of whatever popularity it may have had heretofore in that kingdom. That it will have its decline and fall in this country in a few years, it requires but little shrewdness to foresee.— But it may be doubted if this result will denote any abatement of the spirit of quackery. The same credulity and love of the marvelous which have fostered homœopathy, and other impositions, will remain. A portion of every community will still insist on being duped; and, doubtless, the fertility of invention will be adequate to supply a worthy successor to the fictions of Hahnemann.—*Buffalo Medical Journal*.

Assurance Offices & Medical Referees.

—The dispute which has so long existed between Assurance Offices and Medical Practitioners, respecting the payment of a fee for filling up the usual certificate of the health of a person, has been recently turned into a question of law in the County Court of Colchester. The profession is, we consider, greatly indebted to Mr. S. A. Philbrick, a surgeon of that town, for procuring a decision on a subject which has created so much discussion; and although this decision is, in one sense, not so favourable as we might have anticipated, it fixes the law on a clear basis, and shows how, in future cases, a man may place himself in a position either to secure compensation, or entirely discharge himself of the trouble and responsibility of filling up these assurance-certificates. The case to which we refer is that of *PHILBRICK v. WHETHAM*; it was tried in the County Court of Colchester on the 2d instant. As the

particulars cannot fail to interest our readers, we subjoin a full abstract of the proceedings:—

“Defendant was sued as one of the Directors of the *National Provident Institution*, for the fee of one guinea, for furnishing particulars as to the health of a party proposing to assure his life. Mr. Hardwick (of the firm of Davidson and Hardwick, London) was retained for the Company; Mr. F. B. Philbrick appeared for the plaintiff, and observed that, although the action was brought for a small amount, it involved a question of some importance to the profession, as well as to the Society represented by the defendant. He then explained that, on the 6th of August, plaintiff received a circular letter from Mr. Marsh, secretary to the National Provident Institution, stating that, ‘reference having been made to him, (Mr. Philbrick) as his medical attendant, in a proposal for a life policy by Mr. Jas. Harwood, the Board requested that he would favour them with answers to the questions given in the document. It further stated that communications of this nature were considered as strictly confidential; and a request was added in writing that the information should be forwarded forthwith, so that the proposal might be considered and decided upon at the next Board-day. The certificate was sent up on the 8th, with a note charging *the fee of a guinea*; and, on the 10th, the plaintiff received a letter from Mr. Marsh, stating that it was not the practice of the office to pay fees to the medical attendants of assurers. Some correspondence on the subject not resulting in payment of the demand, the plaintiff had thought it right to avail himself of the assistance of the County Court for trying the question. The case occupied a considerable time, and the law applicable to it was the subject of a lengthened argument between His Honour, Mr. Philbrick, and Mr. Hardwick.

“The plaintiff, in his evidence, said that for some years he had furnished similar certificates to the office in question without charge; life assurance was not then so prevalent as to make the practice a burden to the profession; but since these applications had become so frequent, he had refused to supply the information without payment. He mentioned two instances in which he had actually received payment through Mr.

Hayward, the Society’s agent in Colchester—in December, 1848, as to the health of Mr. N. Cobb; and in the spring of this year, as to Mr. Linnett Bibby. In *cross-examination* he admitted that in the latter case Mr. Hayward had told him that the money came from the party effecting the assurance; but there was no such intimation in the case of Mr. Cobb; had heard Mr. Hayward say in conversation that offices did not pay these fees, but he had added the hope that he (Mr. Philbrick) would make them. Mr. Philbrick was about to call Mr. Waylen as to the reasonableness of the fee, but Mr. Hardwick said he should raise no question as to the amount; if the Society were bound to pay anything, they were willing to pay the full fee.

“The defence relied upon was in brief that the party being desirous of insuring his life—as it was one of the requisites to enable him to do so, that he should refer to his medical practitioner—the *onus* of payment was upon the assurer, and not upon the Society. At the suggestion of the Judge, Mr. Hayward, the agent, was examined, and stated that when he applied to Mr. Philbrick about the first case he had mentioned, Mr. Philbrick said he had had so many similar applications as to Mr. Cobb, that he should decline furnishing a certificate without a guinea fee: he told Mr. Philbrick that the Society did not pay those fees, but that he would see the parties proposing to assure; and subsequently, by their authority, he paid Mr. Philbrick the guinea, explaining at the same time that it did not come from the office. In Bibby’s case the transaction was similar.—In answer to the Judge, Mr. Hayward said Mr. Philbrick had repeatedly told him he would not furnish any more certificates without a fee; but he had never said that *in case of applications to him he should hold the Society liable*; believed this was the first circular sent to Mr. Philbrick direct from the secretary; those which had been furnished gratuitously had all come from himself as agent.

“Mr. Philbrick submitted that the last answer was a very material one to the plaintiff’s case, as showing a *new mode of application* to him after he had declined to furnish more certificates without payment. He also urged that upon the face of the letter itself, the agreement was between the office and

the plaintiff; for he did not see how the letter could be construed otherwise than as a request from the office to perform certain services on their account.

“His Honor said, if the letter had stood alone, and this had been the *first transaction* of the kind between Mr Philbrick and the office, he thought they would have been liable, and must have paid him; but now, as it appeared to him, the whole depended upon what had previously taken place. Of course Mr. Philbrick was not bound to continue furnishing certificates gratuitously, but he was of opinion that *he could not claim payment without previous notice*. Judgment for the defendant. Mr. Hardwick said he should make no application for costs, which, his Honor remarked, was a very liberal course. Many of the medical gentlemen of the town were in Court during the trial, which appeared to excite considerable interest.

The decision appears to have been fair and equitable. As no notice had been given to the Assurance office that certificates would in future be charged, and they had hitherto been given without charge, or, as alleged in evidence in two instances quoted, the payments had been made, not by the office, but by the insured,—it does not appear that any other judgment could have been delivered than that above recorded.

We therefore learn from the result of this case, that a medical practitioner who has already furnished certificates to an Office without payment, cannot legally claim payment for any new case unless he has given previous notice of his intention to make such a claim. The fact of the application for a certificate coming from another person, but still acting on the part of the Office, does not in any way affect the question. If, however, an Office should for the first time make an application to a practitioner, he can demand, and we apprehend recover, payment in a County Court for the important service thus rendered. The party making the application (*i. e.*, the Office) will be liable in law for a fair and reasonable remuneration. If, as they say, it is not their practice to pay such fees, and the service is really rendered to the insured person and not to the Company, this will be no defence, because, according to English law, as it is at present administered, a man who takes upon himself to give an order for an article,

whether for an Insurance certificate or an arm-chair, must pay the party supplying it; and if, as it is cunningly alleged, the service is really rendered to another, then the party ordering the article has his separate remedy by action against that individual. Insurance Offices cannot benefit as principals, and evade their responsibility under the pretence of being agents.

We do not doubt after this decision that there will be another move on the chess-board on the part of the Offices; but if the members of the profession show the same spirit as Mr. Philbrick, it can only end in check-mate. On applying to a practitioner for the first time, or to one who has already supplied gratuitous certificates, but has since given notice that in any future case he will require a fee, it is most probable that the letter of application from the Office will contain a small printed line at the foot, to the following effect:—“N. B. It is expected that this certificate will be filled up and forwarded by Mr. — *gratuitously*.— This company does not pay fees for medical certificates.” A practitioner will, however, be then placed on his guard.— Unless a stamped envelope for returning it be enclosed, he should take no more notice of the application than he would of the well-known circulars of the Austrian Lottery agents, who promise the chance of a duchy with its title and appurtenances, on the purchase of a ticket at the cost of a few rix dollars. Both parties attempt to extort something for nothing, and the application should be treated accordingly. Let it be duly considered that a man who henceforth grants an insurance certificate, except in the case of a brother practitioner, without receiving a fee from a person who applies for the document, we care not whether it be the Office or the insured, is inflicting a gross injury on the profession, and retarding the settlement of a question which is seriously affecting its rights. Insurance offices, in disputing claims, have repeatedly forced into the witness-box surgeons who have given these *gratuitous* certificates, when, in speaking the truth on oath, they have been compelled, probably to the great injury of their professional practice, to support the case of the Office on a document alleged by them to be of a *private* nature. The gratuitous certificate writer may rest assured that its privacy is only maintained by

the Company so long as it suits their pecuniary interests, and no longer. Although they have not paid a fee for it, they will not hesitate, when an opportunity occurs, of turning it to the highly useful purpose of defeating a claim for three or four thousand pounds.

With facts like these it is scarcely necessary to treat as a serious argument the plea for non-payment invariably alleged by the non-paying Companies—namely, that the certificate is for the benefit of the proposed insured. He who applies a document to his own use must be considered to derive benefit from it.—The proposed insured for himself neither requires nor makes use of such a document. He is ready to pay down a premium without a certificate: the Company, on the other hand, are not prepared to take his premium until they have ascertained the probable amount of risk from his usual medical attendant. Their pecuniary interest lies in ascertaining and fixing this risk as closely as possible. They cannot determine this without the medical certificate: it is therefore contrary to fact to allege that the insured and not the insurer derives the benefit from the certificate. There can be no doubt that the insured is equitably liable for the fee: and to put this question to the best test, the following plan might be adopted by the Companies and the profession:—Let it be understood that the person proposing to insure his life pays the medical fee—the medical certificate is clearly his property, and should pass through his hands to the Company for their inspection only. He who has paid for the document has acquired property in it, and has a right to keep it.—This plan might not accord with the views of Insurance Companies: but if there argument for non-payment be well founded, on what principle can they object to the adoption of such a plan?

In the meantime, however, we most strongly protest against medical men being made the victims of a mere quibble. Valuable service is rendered by the certificate: the party requires and retains it refers for payment to him who does not require or retain it. This is mere shuffling. Let insurers take lives without inquiry, or let them pay for that of which they make a beneficial use.—*Medical Gazette.*

Beware of your Oysters.—The following actual quotations from a standard work on Homeopathy are so ridiculous, that one might think it a mere burlesque, were it not for assurance to the contrary. It is the recorded effects of a decillionth of a grain of oyster shell, whose extraordinary influence remains fifty days, producing the following wonderful results. Heaven preserve us from the results of eating oysters that have rubbed against the shell:—

“After dinner, disposition to sleep; the patient winks; tremor of the hands when occupied with fine, small work; the upper lip becomes cracked; phlegm is hawked out, chiefly in the morning; there is a voluptuous tickling on the sole of the foot after scratching; a little indolence, aversion to talk; joylessness, and disinclination to labor; attacks of anxiety, especially at evening; inflammation and swelling of one half the nose; an itching, tickling sensation at the outer edge of the palm of the left hand, which obliges the person to scratch; cool perspiration of the hands, frequently with a cold point of the nose.* * * * * walks with a self-sufficient importance; when stepping out walking, a sensation on the back of the foot, as if the boot was too tight; the little toe aches as if hard pressed; drawing pain on the head when brushing the hair backwards; tightness on the small toe of the left foot.”—*Lessons from the History of Medical Delusions.*

British American Journal.

MONTREAL, DECEMBER 1, 1850.

The Medical Schools of Canada.—

We understand that the following numbers represent approximately the students in attendance at the various medical schools in this province:—Toronto—King's College, 35; Upper Canada School of Medicine, 10; Dr. Rolph's school, 25. Montreal—McGill College, 47; School of Medicine, 23; Quebec—School of Medicine, 20. We

*We wonder if any of Mr. Wilde's patients in the Irish poor-houses, afflicted with purulent Ophthalmia, could by accident have swallowed this dose of oyster shell, in as much as Mr. Wilde in his Report gives "coldness of the tip of the nose" as a prominent symptom.—See Dublin Medical Press, Sept. 26. Ed. B. A. J.

cannot vouch positively for the correctness of the above numbers, but we think, considering the sources from which we have derived our intelligence, that the proportions are not far wrong. While in connection with this topic, we may notice that Dr. Macdonnell has returned to this city, and we hope to find his pen and personal efforts reoccupied in writing for the columns of this journal, and the advancement of professional learning among us.

New York reprint of the London Lancet.—We do not profess to understand the principle which guides the publication of this reprint. However much we would like to do so, one thing is clear, that we should expect in the usual monthly numbers, the matter which the original contained during the month preceding the day of ostensible republication at New York. But far otherwise is the case, and thus the reprint, far from keeping pace with the original, lags most fearfully behind, and treats its readers to matter months old. We were not aware of this until very lately, and having induced an intimate friend to undertake an analysis of the three or four last numbers, that gentleman has detected the following rather strange anomalies:—

The *August* number (N. Y.) contains papers from the March and April numbers of the original.

The *September* number (N. Y.) contains Guthrie's biography of 15th June. No reviews at all; Macmurdo's lecture on the eye, of May in the original, and Guthrie's lecture for March.

The *October* number contains the biography of Marshall Hall, which appeared in the original of 27th July. Macmurdo's lecture, number 7, of July 6. The review of Spencer Thompson, M.D., on Temperance, &c., 24th Aug.,

1850, is entirely different from the original, with many omissions; and in fact, many of the papers are so confused in the reprint, that it is almost impossible to compare the two.

Is this right, or is it wrong? If the latter, then is the reprint, not what it purports to be; and if the former, why these omissions, alterations, and delays in the republication of the papers. We say nothing of the entire omission of the *Lancet* editorials, which very frequently have important medico-political bearings. We ask again, why is this so?

Coroner's Bill for Upper Canada.—We have published for the benefit of the profession in the sister province, the *Coroner's Bill*, passed at the last session of the legislature. We must say that the fees awarded for the duties of medical witnesses are most shabby, but shabby though they be, the profession is now in a better position than that in which they were.

13th AND 14th VIC. CAP. LVI.

An Act to amend the Law respecting the office of Coroner. [24th July, 1850.]

Whereas the regulations for holding Coroners' Inquests are insufficient, and it is desirable that some remedy should be provided therefor: Be it therefore enacted by the Queen's most excellent Majesty, by and with the advice and consent of the Legislative Council and of the Legislative Assembly of the Province of Canada, constituted and assembled by virtue of and under the authority of an Act passed in the Parliament of the United Kingdom of Great Britain and Ireland, and intituled *An Act to re-write the Provinces of Upper and Lower Canada, and for the Government of Canada*, and it is hereby enacted by the authority of the same, That from and after the passing of this Act, no Inquest shall be holden on the body of any deceased person by any Coroner until it has been first made to appear to such Coroner, that there is reason to believe that such deceased person came to his death under such circumstances of violence or unfair means, or culpable or negli-

gent conduct, either of himself or of others, as require investigation, and not through any mere accident or mischance; Provided always, that an Inquest shall be holden on the body of any person who shall die while in confinement in any Penitentiary.

II. And be it enacted, That upon the death of any prisoner or any lunatic confined in any Lunatic Asylum, it shall be the duty of the Warden, Gaoler, Keeper or Superintendent of any Penitentiary, Gaol, Prison, House of Correction, Lock-up-house, or Lunatic Asylum in which such prisoner or lunatic shall have died, immediately to give notice of such death to some Coroner of the County or City in which such death shall have taken place, and thereupon such Coroner shall proceed forthwith to hold an Inquest upon the body of such deceased prisoner or lunatic.

III. And be it enacted, That if any person having been duly summoned as a juror or witness to give evidence upon any Coroner's Inquest, shall not, after being openly called three times, appear and serve as such juror, or appear and give evidence on such Inquest, every such Coroner shall be empowered to impose such fine upon any person so making default as he shall think fit, not exceeding twenty shillings; and every such Coroner shall make out and sign a certificate, containing the name, residence, trade or calling of such person so making default, together with the amount of the fine imposed, and the cause of such fine, and shall transmit such certificate to the Clerk of the Peace in the County in which such defaulter shall reside, on or before the first day of the Quarter Sessions of the Peace then next ensuing for such last mentioned County, and shall cause a copy of such certificate to be served upon the person so fined, by leaving it at his residence, within a reasonable time after such Inquest; and all fines and forfeitures so certified by such Coroner shall be estreated, levied and applied in like manner, and subject to the like powers, provisions and penalties in all respects as if they had been part of the fines imposed at such Quarter Sessions: Provided always, that nothing herein contained shall be construed to affect any power now by law vested in any Coroner for compelling any person to appear and give evidence before him on any Inquest or other proceeding, or for punishing any person for contempt of Court, in not so appearing and giving evidence or otherwise.

IV. And be it enacted, That no Inquisition found upon or by any Coroner's In-

quest, nor any judgment recorded upon or by virtue of any such Inquisition, shall be quashed, stayed or reserved for want of the averment therein of any matter unnecessary to be proved, nor for the omission of any technical word or words of mere form or surplusage, and in all such cases and all others of technical defect, it shall be lawful for either of the Superior Courts of Common Law, or any Judge thereof, or any Judge of Assize or Gaol Delivery, if he shall think fit, upon the occasion of any such inquisition being called in question before them or him, to order the same to be amended, and the same shall be amended accordingly.

V. And be it enacted, That whenever upon summoning or holding of any Coroner's Inquest, it shall appear to the Coroner that the deceased person was attended at his or her death, or during his or her last illness by any legally qualified medical practitioner, it shall be lawful for the Coroner to issue his order in the form in the Schedule hereunto annexed, for the attendance of such practitioner as a witness at such inquest; and if it shall appear to the Coroner that the deceased person was not attended immediately at or before his or her death by any legally qualified medical practitioner, it shall be lawful for the Coroner to issue such order for the attendance of any legally qualified medical practitioner being at the time in actual practice in or near the place where the death has happened; and it shall be lawful for the Coroner, either in his order for the attendance of the medical witness, or at any time between the issuing of such notice and the termination of the Inquest, to direct the performance of a *post mortem* examination, with or without any analysis of the contents of the stomach or intestines, by the medical witness or witnesses who may be summoned to attend at any Inquest; Provided that if any person shall state upon oath before the Coroner, that in his or her belief the death of the deceased individual was caused partly or entirely by the improper or negligent treatment of any medical practitioner or other person, such medical practitioner or other person shall not be allowed to assist at such *post mortem* examination of the deceased.

VI. And be it enacted, That whenever it shall appear to the majority of the Jurymen sitting at any Coroner's Inquest, that the cause of death has not been satisfactorily explained by the evidence of the medical practitioner or other witness or witnesses who may be examined in the first instance,

such majority of the Jurymen are hereby authorized and empowered to name to the Coroner, in writing, any other legally qualified medical practitioner or practitioners, and to require the Coroner to issue his order in the form hereinbefore mentioned, for the attendance of such last mentioned medical practitioner or practitioners, as a witness or witnesses, and for the performance of such *post mortem* examination, as in the fifth section of this Act mentioned, whether such examination has been before performed or not; and if the Coroner, having been so required, shall refuse to issue his order, he shall be deemed guilty of a misdemeanor, and shall be punishable by a fine not exceeding Ten Pounds, or by imprisonment not exceeding one month, in the discretion of the Court trying such offence, or by both, as to the said Court shall seem fit.

VII. And be it enacted, That where any legally qualified medical practitioner has attended upon a Coroner's Inquest, in obedience to any such order as aforesaid of the Coroner, the said practitioner shall receive for such attendance, if without a *post mortem* examination, One Pound Five Shillings; if with a *post mortem* examination, without an analysis of the stomach or intestines, Two Pounds Ten Shillings; if with such analysis, Five Pounds, together with the sum of One Shilling per mile, for each mile he shall have to travel in going and returning from such inquest, such travel to be proved by his own oath to the said Coroner, who is hereby authorized and empowered to administer the same; and the Coroner is hereby required and commanded to make his order on the Treasurer of the County in which such inquest shall be holden, in favor of such medical practitioner or practitioners, for the payment of such fees or remuneration, and such Treasurer is hereby required and commanded to pay the sum of money mentioned in such order of the Coroner, to the medical witness therein mentioned, out of any funds he may then have in the County Treasury.

VIII. And be it enacted, That where any order for the attendance of any medical practitioner as aforesaid, shall have been personally served upon such practitioner, or where any such order not personally served shall have been received by any medical practitioner as aforesaid, or left at his residence, in sufficient time for him to have obeyed such order, and in every case where such medical practitioner has not obeyed such order, he shall for such neglect or disobedience forfeit the sum of Ten Pounds

upon complaint made thereof by the Coroner or any two of the Jury holding such Inquest, before any two Justices of the Peace of the County where the Inquest was held, or the County where such medical practitioner resides; and such two Justices are hereby required, upon such complaint, to proceed to the hearing and adjudication of the same; and if such medical practitioner shall not shew to the said Justices a good and sufficient reason for not having obeyed such order, to enforce the said penalty by distress and sale of the offender's goods as they are empowered to proceed by any Statute for the summary enforcement of any penalty or forfeiture.

IX. And be it enacted, That this Act shall be in force in Upper Canada.

SCHEDULE TO WHICH THIS ACT REFERS.

Coroner's Inquest at _____, *upon the body of* _____

By virtue of this my order, as Coroner for _____, you are required to appear before me and the Jury, at _____, on the _____ day of _____, at _____ o'clock, to give evidence touching the cause of death of _____, (and then add when the witness is required to make or assist at a post mortem examination) and make or assist in making a *post-mortem* examination of the body, with (or without) an analysis, (as the case may be) and report thereon at the said Inquest.

Signed,

Coroner.

The Eldorado for Physicians.—The following is quoted from the New York Herald, copied from a San Francisco paper. On perusing the list of fees, one would almost imagine one's self to be transplanted into the golden regions of the Arabian Nights. But, it must not be forgotten, that the following rates are but proportional to the heavy personal expenditure incurred in that district, and bear a proportional relative value:

FEE BILL OF THE SAN FRANCISCO MEDICAL SOCIETY.

For a single visit or advice, in a case in which no further visits are required \$32.

[This is not intended to apply to those cases in which the physician is considered the regular medical attendant of the individual or family.]

For each visit in a case in which the

physician is in regular attendance, or for advice at his office, \$16.

Every necessary visit on the same day to be charged, whatever their number, at the same rate.

When detained, for each hour, \$32.

For a visit at the time appointed by the patient or his friends, during the day time, \$32.

For a written opinion, or advice, to a patient, \$50 to 100.

For a visit at night, \$30 to 50.

For a visit as consulting physician, during the day time, \$32.

The same fee shall be paid to the attending physician, \$32.

For a visit as consulting physician, during the night, \$100.

For visiting distant patients, ten dollars to be charged for every mile from the city.

For visiting patients on board vessels in the harbor, \$20.

For an opinion involving a question of law, \$150.

For a *post mortem* examination in case of legal investigation, \$200.

For a *post mortem* examination, made at the request of the family or relatives of the deceased person, \$100.

For a certificate of the state of health of an individual, \$50.

For vaccination, \$32.

For a case of ordinary labor, \$150.

For the application of the forceps, \$3000.

For the operation of turning, \$500.

For reducing fractures and the first dressing, \$50 to 100.

For reducing recent luxations, \$32 to 100.

For reducing old luxations, \$100 to 200.

For removing of stone from the bladder, \$500 to 1000.

For the operation for the radical cure of hydrocele, \$100 to 200.

For the operation for vesico-vaginal or recto-vaginal fistula, \$500 to 1000.

For the operation for phymosis or paraphymosis, \$50 to 100.

For the introduction of the catheter in ordinary cases, \$16 to 32.

For the introduction of the catheter in cases of obstruction, \$100 to 200.

For division of stricture of the urethra, \$300.

For the operation of tracheotomy, \$500.

For the operation for imperforate anus, vagina, &c., \$500.

For the reduction of hernia, by taxis, \$100 to 200.

For the extirpation of tonsils, \$100.

For the introduction of the stomach pump in cases of poison, \$100 to 150.

For removal of foreign substances lodged in the pharynx or œsophagus, \$100 to 200.

For reduction of prolapsus ani, \$50 to 100.

For examination per anum or vaginam, \$50 to 100.

For introduction of a seton, or forming an issue, \$32.

For tapping in ascites or hydrothorax, \$100 to 500.

For the amputation of a leg or arm, \$300.

For amputation at the shoulder joint, \$500.

For amputation of a finger or toe, \$100.

For the extirpation of tumors, \$100 to 1000.

For trephining, \$1000.

For the operation for cataract, \$1000.

For other operations on the eye and its appendages, \$100 to 1000.

For the operation for aneurism of the subclavian, carotid and femoral arteries, \$500 to 1000.

For the operation for strangulated hernia, \$500 to 1000.

For the operation for hare-lip, \$250 to 500.

For the operation for fistula in ano, \$300.

For fistula in perineo, \$300.

For the operation for hemorrhoids, \$300.

For palliative operation for hydrocele, \$50.

Incurvation of the nail, \$50 to 100.

In all other surgical operations, the charge to be discretionary with the surgeon.

For subsequent attendance in surgical cases the charge to be proportioned to the time occupied and trouble incurred.

The accounts of physicians to be deemed due and payable immediately after services of physicians are no longer required.

Meteorological Table for Toronto.—
From some oversight, probably inci-

dentially connected with Capt. Lefroys' temporary absence on sick leave in England, we have not received from H. M. Magnetical Observatory, our usual monthly report. We regret this the more, as it interrupts the valuable series which has now for so many years occupied a conspicuous portion of the Journal. We will endeavour during the present month to have the omission rectified, and will if possible, give the October report on an independant sheet, with our next succeeding issue.

NOTICE TO SUBSCRIBERS.

Subscribers to the former series of this journal are respectfully requested to remit at once the sums severally due. They are aware that we are ourselves under a very heavy responsibility to Mr. Becket, and that, in common justice to us, especially as we have derived no emolument whatever from the publication, we should be sustained by them, and the pecuniary

loss at least averted. We hope that this appeal will not be in vain. We request them to communicate with Mr. Becket.

Subscribers to the present series are requested to forward their subscriptions without delay. The terms are low, and advance payments are presupposed.

TO OUR EXCHANGES.

We would esteem it a particular favor if the Editors of the following American exchanges would supply the vacancies in their series, which have not reached us.

Medical News. No. 68.

American Journal of Science and Arts. Nos. 25 and 26, new series.

American Journal of Insanity. Nos. 1, 2, 3, 4, Vol. 1. Nos. 1 and 2, Vol. 2. No. 3, Vol. 3. No. 3, Vol. 4. No. 3, Vol. 5. Will Dr. Beck oblige us by attending to it?

Dublin Quarterly Journal of Medical Science. No number of this journal has been received since the late editorial change. Is this intentional?

METEOROLOGICAL REGISTER at MONTREAL, for the Month of OCT, 1850.

DATE.	THERMOMETER.				BAROMETER.				WIND.			WEATHER.		
	7 A.M.	3 P.M.	10 P.M.	Mean.	7 A.M.	3 P.M.	10 P.M.	Mean.	7 A.M.	3 P.M.	10 P.M.	7 A.M.	3 P.M.	10 P.M.
1	+46	+63	+54	+59.5	29.83	29.75	29.71	29.76	W	S W	S	Fair	Fair	Clo'dy
2	" 49	" 57	" 51	" 53.	29.47	29.35	29.33	29.38	S	S by E	S by E	Rain	Rain	Rain
3	" 40	" 47	" 46	" 43.5	29.39	29.51	29.64	29.51	W	W	W	Rain	Rain	Fair
4	" 47	" 59	" 48	" 53.	29.72	29.71	29.68	29.70	W by S	W by S	W by S	Fair	Fair	Fair
5	" 48	" 50	" 52	" 59.	29.63	29.54	29.55	29.57	WSW	SSE	W	Fair	Clo'dy	Rain
6	" 44	" 54	" 41	" 49.	29.54	29.53	29.65	29.59	W by N	WSE	W by N	Clo'dy	Shw's	Clo'dy
7	" 39	" 47	" 35	" 43.	29.79	29.84	29.87	29.83	WNW	N W	N	O'rc'st	Fair	Fair
8	" 34	" 50	" 49	" 42.	29.32	29.67	29.64	29.71	WSW	WSW	WSW	Clo'dy	Fair	Clo'dy
9	" 48	" 64	" 53	" 56.	29.69	29.76	29.89	29.78	WSW	WSW	WSW	Fair	Fair	Fair
10	" 56	" 63	" 56	" 54.5	29.90	29.89	29.81	29.86	WSW	S	S	Foggy	Fair	Clo'dy
11	" 43	" 60	" 57	" 51.5	29.67	29.57	29.46	29.57	S by E	S by E	S by E	Rain	Rain	Rain
12	" 55	" 61	" 48	" 58.	29.43	29.30	29.32	29.35	S W	S W	W	Clo'dy	Shw's	Clo'dy
13	" 41	" 48	" 37	" 44.5	29.46	29.48	29.53	29.49	W	W by N	W by N	Fair	Fair	Fair
14	" 33	" 36	" 40	" 39.5	29.58	29.60	29.63	29.60	W by N	WNW	WNW	Fair	Fair	Fair
15	" 35	" 57	" 49	" 46.	29.70	29.72	29.72	29.71	N W	W	S W	Fair	Fair	O'rc'st
16	" 44	" 60	" 48	" 52.	29.77	29.68	29.60	29.69	S	S	SSE	Fair	Fair	Thrn
17	" 46	" 61	" 58	" 53.5	29.91	29.47	29.56	29.51	E	E	E	Rain	O'rc'st	Rain
18	" 45	" 52	" 57	" 48.5	29.58	29.36	29.30	29.51	E	SE	SE	Fair	Rain	Rain
19	" 47	" 49	" 47	" 48.	29.29	29.46	29.53	29.43	W	WSW	WSW	Fair	Clo'dy	Clo'dy
20	" 45	" 50	" 44	" 47.5	29.53	29.50	29.52	29.52	W by N	W by N	W by N	Fair	Shw's	Clo'dy
21	" 42	" 51	" 40	" 46.5	29.52	29.47	29.48	29.49	N W	N W	S	Fair	Clo'dy	Fair
22	" 46	" 57	" 46	" 51.5	29.49	29.46	30.38	29.48	S	S	S	Clo'dy	Fair	Clo'dy
23	" 48	" 52	" 48	" 50.	29.42	29.54	29.58	29.51	S	S	S W	Rain	Rain	O'rc'st
24	" 42	" 47	" 44	" 44.5	29.63	29.72	29.75	29.70	N W	N W	N W	Rain	Rain	Rain
25	" 43	" 48	" 42	" 45.5	29.85	29.86	29.8	29.85	N by E	N by E	N by E	Clo'dy	Rain	Rain
26	" 40	" 44	" 43	" 42.	29.74	29.66	29.65	29.65	NNE	NNE	NNE	Rain	Rain	Rain
27	" 39	" 40	" 35	" 39.5	29.27	29.21	29.46	29.31	NNE	NNE	NNE	Rain	Rain	Snow
28	" 32.	" 38	" 35	" 35.	29.66	29.54	29.68	29.62	S W	S W	S W	Fair	Rain	Rain
29	" 30	" 37	" 31	" 33.5	29.94	29.95	29.96	29.95	SSW	SSW	SSW	Fair	O'rc'st	Fair
30	" 29	" 45	" 35	" 37.	29.93	29.98	29.90	29.91	S S W	SSW	SSW	Fair	Fair	Fair
31	" 34	" 50	" 38	" 42.	29.94	29.90	29.89	29.91	S S W	SSW	SSW	Fair	Fair	Fair

THERM { Maximum +70° on the 6th, at 3 P. M.
 { Minimum, +29° " 30th, at 7 A. M.
 Mean of the Month, +47.35

BAROM. { Maximum, 29.96 in, on the 29th, at 7 A. M.
 { Minimum, 29.21 " " 27th, at 3 P. M.
 Mean of the Month, 29.627 inches.

