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ART. LVII.—*Case of Gangrenous Abscess of the Lung, caused by a foreign body,—with some remarks. By* V. G. BROWN, M. D., *Staff Surgeon, Amherstburg, C. W.*

Early last January, I was summoned to see Miss D., aetat. 21, the daughter of a half-pay officer residing in this town. She had been suffering since a few days before Christmas, from a short, dry, harassing cough, which disturbed her especially at night. It was accompanied by short fits of weakness, approaching almost to faintness. She had no expectoration with the cough, neither did she experience the slightest degree of pain in any part of the chest, on the deepest inspiration. The only pain she felt was in the throat; she complained of a slight difficulty of deglutition; there was a faint erysipelatous redness of the back of the pharynx and tonsils. She said that a few days before Christmas, while eating some broth, a small piece of bone had gone the wrong way. At the time, it caused her a good deal of uneasiness, but that she thought she had coughed it up again; ever since she has suffered from the cough. A careful examination of the throat was made, but no traces of the presence of any foreign body could be discovered in the larynx or trachea. Conceiving that in all probability the bone had left behind it some source of irritation which gave rise to the existing symptoms, a palliative treatment was decided on; the throat was well-washed with a solution of nitratis argenti grs. xxx ad ℥i; an astringent gargle, and a sedative cough mixture were prescribed. This treatment was persevered in for some days, with benefit; the cough nearly ceased, and she was comparatively speaking easy, until the 14th, when the cough suddenly returned with fainting fits, accompanied with pain in the right side under the mamma; she was unable also to lie on that side; the pulse was quick and weak; skin hot; tongue foul; expression of face indicative of one laboring under pneumonic inflammation; expectoration scanty and very viscid in character. On a stethoscopic examination of the chest, the left lung presented nothing abnormal, neither did the upper part of the right; but the whole of the anterior, lateral, and posterior regions of its middle and lower lobes, elicited a perfectly dull sound on percussion; a fine crepitus also existed from below the mamma as far as the bottom of the lung—the sounds of the heart were distinctly audible all over this region, and she was laboring under considerable dyspnœa. A large blister was immediately placed on the affected side, to be dressed with ungt. hydrarg. and cal. grs. ij. tart. antim. gr. ¼. and pulv. opii. gr. ½, every 3 hours, ordered. This was continued till the night of the 16th, when she was suddenly seized with a violent fit of coughing, almost aproaching to suffocation; this was speedily followed by the most profuse expectoration; muco-purulent in character; of a dull ash color; and of such an insufferably fœtid stench, that it was almost impossible to remain by her bedside; the most distant parts of her room were pervaded by the horrible fœtor, which was painfully distressing and nauseating to the unfortunate sufferer. I saw her soon afterwards, and examined the affected side. Perfectly distinct, cavernous breathing with gargouillement and pectoriloquy, were discovered on the seat of the crepitus; the pulse was quick and weak, 140; face indicative of great

prostration of strength; large, circular, circumscribed spots, of a dark purple color on both cheeks; dyspnœa not so great; cough incessant; great sickness of stomach, in consequence of the abominable expectoration; throat very sore and red; the calomel was immediately stopped, and the following mixture and gargle ordered:

℞. Sodæ Chlorin. ʒi.
Tinct. Hyoscyam. ʒiss.
Tinct. Opii Camph. ℥ss.
Acid. Hydrocyan. m viii.
Syrup. Aurantii. ℥i.
Lactis Amygdal. ℥viii m.
Capiat cochlearia duo ampla ter in die.

℞. Sodæ Chlorin. ʒi.
Tinct. Myrrhæ. ℥ss.
Mellis. Rosar. ℥ss.
Infus. Rosar. ℥x m.
Fiat gargarisma sœpe utendum.

Beef tea and wine ad libitum. Carefully considering the merits of the case, it occurred to me that the bone having descended into the lung, might be the source of the lesion. I stated my opinion to her parents, and directed them carefully to examine in future her expectoration. She continued much better until the 16th; the expectoration was not nearly so copious or fœtid in character; the nausea of her stomach disappeared, and the cough was less until the night of the 16th. A similar struggle to that on the 14th took place; with a sudden effort, she succeeded in expectorating a very large quantity of the same abominably fœtid matter; in it was found a small angular piece of bone—she immediately received relief. On the following morning when I saw her, I found her in some respects relieved, but still remaining under great debility and fever; on examining the right side, the whole of the anterior portion from below the mamma, as far as the bottom of the lung was not nearly so dull on percussion as before; a change of the most striking nature had taken place, for this part had been before quite dull; the side was now also a little dilated, the stethoscope also detected a loud and well-marked metallic tinkling; whenever she coughed or spoke, immediately below the mamma, a crepitus was very audible in the posterior portion of the lung along the spinal column; the detection of the former pneumonia now rendered it certain that an abscess existed in the lung, communicating certainly on the one hand with the bronchial tube, and not improbably on the other with the pleural cavity, a view of the subject, which, in my mind, rendered the case hopeless, and I immediately pronounced it to be so to her family.

19th. Passed a very restless night; cough still troublesome; throat better, but cannot swallow any substance; expectoration not so fœtid, still muco-purulent in character; stethoscopic phenomena the same. Pergat cum omnibus, et capiat, si opus sit, cochlearia duo ampla misturæ sequentis.

℞. Mist. Cretæ Comp. ℥viiss.
Confect. Aromat. ℥ss.
Syrup. Morphiæ. ℥ss.
Tinct. Catechu. ʒi. m.

20. Symptoms much the same; is afraid to sleep on account of a presentiment of impending suffocation; complains of the throat again; the epiglottis feels tumefied; it was well-touched with a strong solution of nitratis argenti ʒi, *a* ℥i by means of the finger encased in leather, passed as far as possible into the throat; this gave her instant relief. Diarrhœa has disappeared; perspired a little about the chest.

℞. Acidi. Sulphur. dilut. ʒss.
Mist. Camphor. ʒi.
Syrup. Aurantii. ℥i m.
Fiat haustus, et capiat hora somni.

21st. Passed a middling night; early in the morning the symptoms became aggravated; the dyspnœa and fever increased; the action of the heart became very loud and tumultuous; the expectoration almost ceased, and she complained of a stitch in the left side; the cough was very incessant, and very short. On auscultation of the left side, slight frottement was audible in the corresponding portion of the lung; loud bronchial respiration was audible all over the antero-superior portions of both lungs; here and

there at the end of respiration sibilant rales were heard; the same in the posterior portions of the lung. On the left side the metallic tinkling was *almost inaudible*; the side was much duller on percussion than before, and more dilated. A mustard sinapism was placed on the left side, to be repeated in six hours; it afforded considerable relief — The following mixture was prescribed:

℞. Nitrat. Potassæ, ʒi.;
Vin. Ipecac. ʒi.
Syrup. Bals. Tolu ℥ss.
Tinct. Digital. ʒi.
Tinct. Aurantii. ʒi.
Decoct. Hordei. ℥viiss. m.

Capiat Cochlearia duo ampla omni tertia hora. ℞. Emp. Belladonnæ, applicetur regioni præcordiali.

22nd. This morning she coughed up a small quantity of clotted blood, which was soon after followed by a copious expectoration of a thick tenacious mucopurulent matter of the usual offensive odour; loose moist crepitating rales are audible all over the left lung, both anteriorly and posteriorly; the metallic tinkling is quite audible in its former situation; right side not so dull; action of heart much less; complains of throat again. Pergatur, cum gargarismate sodæ chlorin. Omittatur mist, et capiat cochlearia duo ampla misturæ sequentis omni tertia hora.

℞. Ammon. Sesquicarb. ʒi.
Spt. Etheris Sulphuric. ʒi.
Syrup. Aurantii ℥i.
Decoct. Polygalæ ℥viij. m.

23rd. Appears much relieved; not so feverish or so low as yesterday; expectoration still copious; stethoscopic phenomena the same; no diarrhœa or night sweats.

24th. She continued much in the same state for three or four days, when she began to sink gradually. On the night of the 30th, she suddenly was seized with a spasmodic fit, and became for the moment violently delirious, so much so that it took three or four people to keep her down in her bed, at intervals during the night. She was again seized with similar fits, becoming each time weaker, until she died at 5 o'clock, A.M., on the morning of the 31st.

Post-Mortem appearances twelve hours after death.—At the request of her family no cavity was examined but the thorax.

Immediately on raising the sternum, the whole of the lower and middle lobes of the right lung were found to be in a state of gangrenous carnification and occupied by several cavities, all communicating one with the other, filled with a thin brownish fluid of the same fœtor as the expectoration; the substance of the lung was of a dark greenish brown colour; it was adherent anteriorly to the pleura costalis, and inferiorly to the diaphragm, posteriorly not so. A small opening, sufficiently large to admit the end of a probe, was found corresponding to the situation of the tintement metallique during life — namely, a little below and to the left of the mamma, this communicated by means of the probe with one of the cavities. A small quantity of the same sort of fluid as that found in the abscesses, was discovered in the posterior part of the pleural cavity. The upper lobe of the lung was healthy, with the exception of a slight redness, perceptible on the mucous membrane lining the larger bronchial tubes; this redness was much more perceptible on the larynx and trachea, than on that lining the bronchial tubes of the left lung, which were filled with thick puriform matter the same as that expectorated during life. The lower lobe of the lung was adherent to the left side, as if recently so; the substance of the lung was natural; no traces of ulceration were discernable either in the trachea or larynx; heart normal.

The above case presents many features fraught with peculiar interest.— The rare occurrence of the descent of a foreign body into the lungs—the generally speaking fatal termination of the accident—the difficulty of arriving at a correct diagnosis, in consequence of the latent symptoms with which the case is ushered in—the almost inutility of any treatment excepting palliative—the dif-

ferent stethoscopic phenomena discoverable during the progress of the case—and the pathological appearances revealed after death satisfactorily accounting for them—must naturally strike the practical reader. It is, at first sight, a surprising circumstance, that a solid substance of any considerable magnitude, should be able to pass through the narrow chink of the glottis; but examples of the accident are more common than some might suppose There are on record many instances of substances, oddly various in kind, having been forced through the rima glottidis into the lungs—such as morsels of food, the stones of fruit, teeth, pebbles, portions of bone, (as in the present instance,) pieces of money, ears of grain, or a piece of nutshell, &c. &c. An accident of nearly a similar nature to the above occurred at Chatham, a town on the frontier, three years ago. A young man was eating some soup, and accidentally a small piece of bone, according to the usual phrase, "went the wrong way." He thought but little of it at the time, and went about his usual avocation for three weeks, when suddenly, while chopping some wood, he felt an excruciating pain in the right side; the most profuse expectoration set in, of an abominably fœtid odor, attended with hectic fever, and which soon terminated fatally. A post mortem examination revealed the nature of the lesion. A gangrenous abscess was found in the lower lobe of the right lung, with a small piece of bone in the centre of it.

Recovery from the accident is exceedingly rare; the results of it are various; death takes place in several ways. It may take place in a few seconds by apnœa, when the substance sticks in the glottis; it has been followed, as in the present instance, by inflammation of the lung terminating in an abscess; it has ensued after symptoms resembling those of chronic phthisis,—of this I remember an instance which occurred four years ago in the South of Ireland. The daughter of a general officer, ætat 22, when 19 years of age accidentally suffered a pea to go the "wrong way." It descended into the lung; pulmonary irritation set in, attended with attacks of hæmoptysis, hectic fever, and all the symptoms of chronic phthisis. After three years suffering she suddenly sank. A post mortem examination was made, and a pea was found in the centre of an abscess occupying the upper lobe of the right lung. It is a very curious fact, and one which has evident importance in respect to diagnosis, that it is almost always the right bronchus which the substance enters. Dr. Stokes, in his immortal work on diseases of the chest, in a chapter devoted to this subject, satisfactorily explains, on anatomical principles, why it is so. The septum which divides the extremity of the trachea into two branches, is not placed in the middle of the channel, but decidedly towards the left, so that any solid body falling down through the wind-pipe is naturally directed into the right bronchus; this tendency is aided perhaps by the more vertical direction and the somewhat greater capacity of the tube, compared with its fellow.

What ought to be done in such a case? is a question which naturally suggests itself. When a substance becomes entangled in the ventricles of the larynx or trachea, and its presence is made sure of, our course is plain; there is no room in my opinion for hesitation. We must let the substance out through an artificial opening, either by the performance of laryngotomy or tracheotomy, according as the exigencies of the case may require; but when the substance gets beyond the trachea into one of the bronchi, and remains there, nothing can be done but await patiently nature's usual method for the expulsion of foreign bodies in other parts of the body—viz., by suppuration. The foreign body, as men oddly enough call it, may be expelled after a variable period of time; sometimes, and very rarely, its expulsion is the condition and harbinger of the patient's recovery, but he is never safe while it remains.

Amherstburg, C.W., Feb. 26, 1851.

ART. LVIII.—*Horses and their Diseases; Lamenesses; Curious Case; Extraordinary state of the Law in Lower Canada as regards Warranty.* By J. B. TURNER, V.S.

A case came under my notice a short time since, which curious in itself, *pathologically*, seemed to me yet more curious for the way in which it was settled *legally*, according to the law prevailing in this country.

Every one knows that the Courts of Law in Lower Canada are governed in civil cases by the laws or customs which obtained in France at the time of its settlement, and not by the code Napoleon introduced into France after the revolution.

It appears that these laws or customs recognise three *vices redhibitoires*,—that is to say, *la morve, la pousse,* and *la courbature.* If A buy from B a horse, and afterward discover that the horse is affected by either of these maladies, he has a right to *redhibition*,—that is, A returns the horse, and B returns the money; and if B refuses, A sues him.

Now every one knows that *morve* is glanders, and *pousse* broken wind; the difficulty is to discover what is *la courbature,* and how great this difficulty is, will be exemplified in the following case, which I shall detail, and then explain why I have requested the editor of this journal to allow me to occupy his pages.

Some time in September last, I received a paper, of which the following is a translation:—

"Province of Canada,
District of Three Rivers.

CIRCUIT COURT.

Antoine Pleau, *Plaintiff;*
vs.
Firmin Demers, *Defendant.*

"The Court having heard the parties by their respective advocates, and seen the proofs offered, before pronouncing judgment, orders, that J. B. Turner, Esq., appointed expert for this purpose, shall see and examine the horse in this case, and shall report, in detail, with what malady it was affected, at the time of sale made by the defendant to the plaintiff, with special mention of the signs, marks, and symptoms of the said malady; how long the said horse was affected before the period of the said sale, and if in the opinion of the said expert, this malady is that known to the law under the name of *courbature,* or if it is that known as *curb;* if the said malady be incurable, and if it be one of those considered as concealed maladies, and which the plaintiff might not have been able to perceive when he bought the said horse; of which and all which he shall make report with diligence."

By the Court,
&c. &c."

It appears that some months before this, Pleau had bought the horse in question from Demers,—Demers verbally warranting it to be sound; that Pleau only saw the horse once in motion, as Demers drove it through the street of Three Rivers; that he bought it the same night, examining it only by the light of a lantern in the stable, paying for it and taking it home. Pleau went to the stable in the morning to look at his new purchase, and found it lying down, and much to Pleau's dismay *up* it *could* not get without the assistance of several men; and in this very unpleasant predicament the animal continued up to the time I saw it, Pleau being in the equally unpleasant predicament of having £25, good and lawful money, taken from his pocket and placed in that of Demers, and a horse in his stable that wanted more help to get up in the morning than a dissipated lady of fashion. Pleau, however, is a man of pluck, and if there be law in the land he is determined to get rid of his bad bargain. He flies to his lawyer, and straightway Demers receives a billet-doux, in which he is politely requested to hand back the money and

take back his *screw;* Demers flies to his lawyer, and as politely declines. Pleau then serves him with a writ in an action of *redhibition;* and the two attorneys, with Pleau and Demers as backers, set the battle in array. The plaintiff declares that the animal is affected with *la courbature;* the defendant denies it; the Court, learned in all law, but not in horse flesh, feels itself unable to decide, and appoints an expert. Accordingly, I, the expert named, repaired to Three Rivers; and on the 5th of November saw and examined the horse, and rendered to the Court a report of which the following is the substance :—

"I found the said horse to be affected in the knee joints of both forelegs and the hock joints of both hind legs, with that disease of the bones which is scientifically denominated "exostosis," —popularly, in English, known as "splint" on the fore legs, and "spavin" on the hind legs, and which I believe to be popularly known in France as "*un suros,*" which is certainly a *courbature;*—and which disease, being of slow growth, I have no hesitation in saying, must have existed for some considerable time previous to the sale of the said horse on the 13th day of June last. The symptoms, signs, and marks of the disease, are, the visible and sensible enlargement of the joints, heat and tenderness of the parts, with the accompanying lameness, which signs and marks must have existed for some months previous to the said sale. The disease, so far as it occasions lameness, is *courbature;* and I know that the lameness both in the knee and hock joints is, in this case, incurable. The horse has not what English Veterinary Surgeons call "*courbe,*" (curb,) which is a curable disease. It is very possible that the plaintiff may not have noticed the disease when he purchased the horse; because though the disease was going on within the cavities of the joints, there may have been neither swelling nor lameness sufficiently visible to strike an inexperienced eye, but which would have been readily detected by a Veterinary Surgeon."

It will be observed that the horse was bought on the 13th of June, and that I did not see it till the 5th of November, the intervening time, I presume, having been taken up by the preliminary skirmishes of the lawyers. On the 13th of June the horse, I was told, could trot tolerably fast, without showing any great lameness, though, when it laid itself down, it had not the power to get up again. When I saw it in November, it could hardly hobble; two immense spavins were on the hocks, and what is very unusual, two equally immense splints, situated as high up as they well could be on the knees, and directly interfering with the suspensory ligament. All four joints were violently inflamed, and the animal evidently in great pain, the fore legs knuckling under it at every step.

I handed in my report to the officer of the Court, and returned to Montreal. It appears that the defendant's lawyer raised several technical objections to my report, which will be understood by the following documents. I may however mention that the defendant's lawyer, as I was informed, did me the honor to accuse me either of "bad faith" or "ignorance;" perhaps not much else was to be expected from Mr. Turcotte.

On the 30th of November, the Court issued a further interlocutory judgment, addressed to me, of which the following s the substance :—

"The expert is required to give a supplementary report on the following points:— 1st. The disease known to the writers of the law of this country as *courbature,* being by them defined '*un battement dans les flancs occasionné par un travail excessif, cette maladie ôte au cheval la liberté du mouvement des jambes,*' and to consist in the words of Solleysel, author of the Parfait Marechal, '*dans une chaleur etrangere causée par les obstructions qui sont dans les intestins et dans les poumons,*' and said

to give the same signs as *la pousse*, another disease of horses which consists '*dans un battement et alteration du flanc, qui vient d'un oppression qui empeche le cheval de respirer:*' it is required of the expert that he state if the horse in question did exhibit to him at the time when the same was examined by the said expert, any of the afore mentioned signs of the first mentioned disease called *courbature*, and which; and in case the said expert should report in the negative, he is required to state if notwithstanding the absence of such signs he still is of opinion that the said horse was affected with the disease called *courbature*, of which last mentioned disease the said expert is required to give his definition and understanding, with the diagnostics of the malady and the grounds and authorities in support of his opinion.

"2nd. In the French translation of an English work on the Veterinary Art, by Mr. Delabere Blaine, entitled 'Fundamental Notions on the Veterinary Art,' vol III, page 200, 205, the above mentioned disease 'pousse,' which is there stated to resemble the asthma in the human species, is given as a subdivision of a disease denominated 'thick wind;' it is required that the supplementary report should state if there be any and what analogy between the disease called '*courbature*' and that treated of in Mr. Blaine's work under the denomination of 'thick wind.'

"3rd. It is required of the expert that he do report if the malady with which he found the said horse affected, was or was not a primary affection of the joints and other parts of the legs, not having its cause or seat in the stomach, intestines, lungs, and other parts of the system. Or if the said affection of the joints and other parts of the legs was not a secondary or sympathetic affection, the principal and original seat of the disease being in the stomach, intestines, lungs, or other and which parts of the system; and in the last hypothesis, the said expert is required to state on what signs, marks, and symptoms he grounds the opinion that the primary affection is one of the stomach, intestines or lungs, and how far it corresponds with the definition given by the French law writers and Veterinary Surgeons, of the above mentioned disease called '*courbature*.'

"4. The tenor of the report before the Court leading to the belief, that in the opinion of the expert the affection is one of the legs and purely local, and the terms 'exostosis,' 'splint,' spavin,' and 'suros,' together with the expert's description of the symptoms, signs, and marks of the disease apparently pointing to this conclusion; the expert is required to state in what sense the expression a '*courbature*,' immediately following the words '*un suros*,' has been employed by him, and whether in using the said expression '*courbature*,' regard has been had to the French technical signification, or to any real or supposed etymology of the word.

"5th. It is also required that the said expert should report if modern discovery or experience has or has not proved that the disease called "*courbature*" is not other than and different from the malady known to old writers under the same name, and in what respect."

This supplementary series of interrogations I replied to without loss of time, to the following effect:—

"To reply to the questions put in this further interlocutory judgment, is almost to write a history of Veterinary Surgery; and the whole gist of the matter, so far as it relates to the former report of the 5th of November, may be found in the fifth clause or paragraph of the second interlocutory judgment,—'it is also required that the said expert should report if modern discovery or experience has or has not proved that the disease called *courbature* is not other than and different from the malady known to old writers under the same name, and in what respect.'

It is probable that I, as expert named in this cause, committed an error in not submitting to the Court in my former report the reasons which led me to the decision contained in that report, but I was not aware that such reasons would be required by the Court; and I believed that my duty was simply to do justice between the plaintiff and defendant according to the knowledge which I possessed, leaving the mere legal technicalities, with which I am utterly unacquainted, to the advocates and this honorable Court. I must further observe that a period of some months had

elapsed between the sale of the horse in question and my examination thereof; that in so long a period diseases often alter their character, in a very material degree; and further that I could learn nothing of the history of the animal in question, previous to its sale by the plaintiff to the defendant.

"Although I have a very good acquaintance with the works of French Veterinary authors, I never saw the word '*courbature*' used, or heard of its being used, until I saw it in the interlocutory judgment of this Court, dated the 30th of September. My immediate anxiety was to find out the meaning of the word in its medical, and not in its legal acceptation. I consulted the best French Dictionary in my possession—that of Richelet, Edit, folio, Lyons, 1759—and I there found:—

"*Courbattu, Courbattue;* adj. (equaus obstructus) qui a la courbature. Cheval courbattu, c'est a dire, qui n'a pas le mouvement des jambes bien libre.

Courbature; s.f. (Asthmus. Equi obstructio.) Chaleur etrangere causée par les obstructions qui sont dans les intestins et dans le poumon, et qui donne les memes signes que la pousse.

"Cette maladie arrive quand un cheval est tellement fatigué, qu'il ne peut presque pas respirer. Cheval courbattu, qui a été poussé a l'outrance et n'a pas la respiration libre; il est different du poussif en ce que celui-ci a le poumon altéré, avec de grands redoublements de flanc. Un cheval peut devenir courbattu sans avoir été *surmené*, lorsqu'il a les parties interieures, ou les ang, echauffé et plein d'humeurs étrangères.

"I then referred to Boyer's Dictionary, where I found these words:—

"*Courbattu;* il se dit d'un cheval qui a les jambes roides pour avoir trop travaillé." I may here state that the word 'surmené' is a term of the manège, and is rendered in the same dictionary of Richelet, 'c'est accabler un cheval de travail.'

"The Court will be pleased to observe that the word 'courbattu' is in the first place applied to a horse that has not the free use of his legs, the cause of the want of that free use not being stated.

"In the second place, a "*cheval courbattu*" is said to be one that has been pushed beyond endurance, (poussé à l'outrance) and so affected in its respiration.

"In the third place, that a horse may be '*courbattu*' without having been '*surmené;*' or in other words, pushed beyond endurance in over work.

"I then take Solleysell's definition, that the want of free use in the limbs is caused by obstructions in the intestines and lungs.

"In these apparently conflicting statements I discovered pretty well where the truth lay, so far as the meaning of the word *courbature* is, as used by the old manége writers.

"I must here observe that the Sieur de Solleysell, whose 'Complete Farrier' is quoted in the Dictionary de Richelet, and according to this honorable Court, by certain writers on French law, was not a Veterinary Surgeon, but a Riding-master or Equerry to Louis Quinze: and that his book was written towards the end of the 17th century, or about 70 years before the establishment of the Royal Veterinary School at Lyons, and the Royal Veterinary College at Alfort, respectively founded in 1761 and 1766 by the King of France; and that it would be just as ridiculous to quote Paracelsus, or any old Alchemist of the middle ages, as an authority in Chemistry against Farraday or Berzelius, as to cite Solleysell against Percivall or Hurtrel D'Arboval.

"Now, Mons. Huzard, an eminent modern French Veterinary Practitioner, whose work I procured since my first report in this case, appears to express his wonder that the term *courbature* has been retained in the law of Louis Philippe relative to the warranty of horses, dated from the Tuilleries, the 20th of May, 1838. He speaks of it as a term 'dans le language de l'ancienne maréchalerie qui avait précédé la médicine veterinaire.' Its etymology is evidently from the Latin *curvare*, and in human medicine the French practitioners apply the word to fingers and toes permanently bent and distorted; but how does this word, if we had no other light before us, apply to 'obstructions of the lungs and intestines,' and also to a horse not 'having the free use of his limbs?'

"I will see what light I can throw on this apparently mysterious subject.

"I was told in Montreal that the horse which I was to examine and re-

port on was lame in all four legs, and that this lameness *must* be a '*courbature*' or it could not come within the '*vices rédhibitoires.*' Of course it was immaterial to me personally whether it did or did not; but seeing from the description given that it was a curious case professionally, I examined the horse on my arrival at Three Rivers, and without much difficulty came to the conclusion which led me to give the opinion which I did; and had I not carefully studied the works of the old farriers, as well as of the best modern authors on scientific Veterinary medicine, I could not have come to any conclusion at all, on the examination which I made and the information which I had.

"I fortunately had in my possession the English translation of Solleysell's work, made by Sir William Hope, the Governor of Edinburgh Castle, in the year 1717. In that book I found the word '*courbature*' rendered 'chest-founder,' and this at once developed the mystery. What the old unscientific French farrier called *courbature*, the equally unscientific English farrier of the same age called 'chest-founder;' and according to Blaine's authority (Edit 1832, page 485) we find that the terms 'chest-founder, body-founder, and foot-founder' were so jumbled together in old works on Farriery, that one is really at a loss to know in what part of the body the horse, according to them, was diseased. Modern science has shown that chest-founder is in fact acute rheumatism, (see Blaine, Youatt, White, Spooner, Volpi, Rodet, and Hurtrel D'Arboval, *passim,*); that the rheumatism flies about from one part of the body to the other, particularly attacking the joints and often producing incurable lamenesses. But even if we allow '*courbature*' and 'chest-founder' to be synonimous terms, according to language, as stated by a contemporary writer, Sir William Hope, and that chest-founder is rheumatism, this explanation will not apply to the present case. But it is well known that the old farriers believed that almost every disease with which they found the legs of a horse affected, and for which they could not account, was caused by what they termed 'descending humors'; and so when they found a swelling on either leg, and on any part of it, and could not tell what it was, they set it down to arise from some 'obstruction in the intestines or lungs," to use the words of Mons. de Solleysell; and this reconciles the difficulty between the two versions of the meaning of the word '*courbattu,*' the one, that it is any thing which causes the horse to be without the free use of his legs, and the other, that it is an obstruction in the intestines or lungs.

"But there is another disease recognized by the scientific practitioners of the modern school, which more nearly in its symptoms and consequences resembles the 'signs and marks and symptoms' of the '*courbature*' of Mons. de Solleysell and the lawyers. In chest-founder, or acute rheumatism, there is neither '*un battement ni un alteration du flanc, ni une chaleur etrangere ;*' but, in the sub-acute form of pneumonia, there are. A horse may be taken out for a day's work, and may be, from the operation of various causes, seized during its absence from home or return to its stable, with inflammation of the lungs; and to use the words of Percivall, one of the most eminent modern practitioners, 'with the exception of such attacks of acute inflammation of the lungs as by bold and early treatment are at once arrested and supplanted by the return of health, and of such as rapidly continue their destructive course in spite of every measure we may employ to counteract them, all cases may be said to decline into the sub-acute stage before their termination.' But there is another thing, metastasis, or change of place of a disease. Now, it often happens that after this sub-acute form of inflammation of the lungs (*obstruction dans le poumon,*) has existed for some time, it suddenly leaves that viscus and attacks the legs, and particularly the joints; to use the words of the old farriers, 'the fever has fallen from the lungs into the feet;' and here again we have the connection between 'the obstruction of the intestines and lungs,' and 'the want of free use of the legs.' Mr. Percivall distinctly mentions that this some times ends in anchylosis of the joints; and what are splints and spavins, (*suros* and *eparvin*) when on the joints, but incipient anchyloses of those joints?

"Wherefore, from all these considerations I came to the conclusion,

seeing the extraordinary condition of the horse in the possession of the plaintiff, affected with exostosis of the worst description on the knee joints of the fore legs and hock joints of the hind legs, that on some occasion anterior to the time of sale, that horse had from over work or some other cause, been attacked with inflammation of the lungs or pleura, (*poumon ou plevre*) probably of a very mild or sub-acute character; that metastasis had taken place to those joints, and knowing the extraordinary disposition of the bones of the horse to throw out bony deposits, (*exostoses*) under inflammation, and particularly in those joints, I came to the conclusion that the horse was really and truly affected by 'courbature,' in the first instance, by the inflammation or obstruction of the natural action of the lungs or pleura, as the cause; and in the second place, by the want of the free use of his legs, as the effect.

"I therefore proceed to answer the interrogations of this honorable Court, seriatim:—

"1. The horse when I examined him had neither 'battement ni alteration dans les flanes,'—but notwithstanding the absence of such signs I am of opinion that the horse was affected with the disease known by the old writers and in the law as '*courbature*,' though the metastasis to the legs prevented the above mentioned signs from being visible at the time of examination. The definition, diagnostics, grounds and authorities are cited in the preliminary part of this supplementary report.

"2. In my edition of Blaine, I find no such passage as that quoted. In the recent English editions of Blaine much matter is omitted that was in his former ones, (vide introduction to the fourth edition,) but I have always understood 'pousse' to mean 'broken-wind,' to use the English term; it may, however, mean asthmas, or chronic pneumonia, which would be equivalent to the term 'thick-wind.' Mons. Huzard's description of 'la pousse,' completely answers to that of 'broken-wind.'

"3. I believe the malady of the joints of the legs to have been a secondary affection, for the reasons stated in the preliminary portion of this my supplementary report.

"4. This question is also answered in the preliminary part of the report; but I affirm that many diseases which appear to be local may often be traced to primary causes originating elsewhere. I used the term '*courbature*,' in this sense, '*cheval courbattu, c'est à dire, qui n'a pas le mouvement des jambes bien libre*,' the effect; and '*obstructions dans les intestins ou dans les poumons*,' the cause; and should then have entered into the present detailed statement had I thought it necessary. I used the word, as I believe modern science bears me out, having regard to the assumed ancient signification at the same time.

"5. This question is already answered by the whole tenor of this report."

Judgment was given for the plaintiff, in accordance with this opinion.

My reason for requesting the publication of this case is to draw attention to the absurd state of the law, which persists in retaining a barbarous nomenclature, invented and obtaining in Courts of Law long before scientific Veterinary medicine had a beginning. *Courbature*, as defined by legal writers, is an impossible disease—there is no such thing—and it follows, that since one of the three redhibitory vices known to the law, glanders, (*la morve*) is not known in this country, no man can obtain redress from the knave who imposes on him an unsound animal unless he can prove it to have been affected at the time of sale with broken wind, or with '*la courbature*,' an impossible disease, in the sense in which the law books define it.* Too much space has already been occupied, or much more might be said to demonstrate the absurdity and injustice of such a law.—The remedy is obvious,—a short statute defining the most prominent of those maladies and defects which really constitute unsoundness, an act which shall

* Because there is no disease known to modern science, in which lameness is primarily caused by and connected with obstructions in the intestines and lungs.

defend the buyers of horses against their own ignorance and the rascality of the venders.

Montreal, March 15, 1851.

PRACTICE OF MEDICINE.

On Pericarditis, and especially its Existence in a Latent State.—By H. Fearnside, M. B. Lond., Physician to the Preston Dispensary.—There are few, if any, diseases which of late years have been the subjects of closer observation or more elaborate research than Pericarditis; and the results are apparent in our enlarged acquaintance with its history, and in the greater facility of its recognition.

The memoir of M. Louis first brought the disease within the domain of physical diagnosis, and proved that it is susceptible of being detected in most instances with as little difficulty as pleurisy or pneumonia. As signs of the disease he attached great importance to the presence of præcordial fulness or prominence, and extended dulness on percussion over the cardiac region, in consequence of the effusion of fluid within the pericardial sac. Until the publication of his researches, the exact diagnosis of the disease had scarcely been attempted. Laennec, acknowledged that he had sometimes conjectured its existence, but that the state of science did not permit of the attainment of certainty. Bayle entertained and expressed a similar opinion.

The independent observations of M. Collin in France, Drs. Watson, Latham, and Copland, in this country, and Dr. Stokes in Ireland, led to the discovery of the existence at certain periods of the disease of a sound attrition between the opposed surfaces of the pericardium, roughened by the presence of exudation matter, and thus further and largely facilitated its discrimination.

The subject has since engaged the attention of many eminent physicians, and given rise to several valuable essays, amongst which that of Dr. J. Taylor, has contributed much new information respecting the pathology and causes of the disease.

Before proceeding to the special matter of this communication, it may not be without interest to premise a few details respecting the cases which have fallen under my notice during a connection of three years with a large dispensary in a manufacturing town.

During the period mentioned, eight cases of pericarditis came under my observation. Of these, three occurred in the course of acute rheumatism; one was associated with acute rheumatism and disease of the kidneys; two were connected with inflammation of the left lung and pleura; two were connected with Bright's disease of the kidneys; in one of these slight rheumatism also existed.

These statements exemplify the chief sources of the pericarditis: for, although sometimes the result of direct influences, is more commonly produced by extension from a neighboring texture, or by the existence of a peculiar state of the constitution—in other words an alteration in the character of the blood. Thus it is occasionally seen in the course of eruptive fevers; but still more frequently during the progress of Bright's disease of the kidney, or concurrently with that condition of the system characterizing acute rheumatism.

Of severe rheumatic fevers there were but twenty-nine cases, which afforded four examples of pericarditis, (or one case of pericarditis in seven cases of rheumatism). The frequency with which pericarditis occurs in acute rheumatism has been made the subject of repeated investigation, and somewhat conflicting statements respecting it were at one time made by different observers; but, excluding the observations of Bouillaud and Hope, a considerable resemblance exists between the results of those who have published the numerical data upon which they are founded.

Bouillaud stated, in 1835, that pericarditis exists in about one half of the subjects attacked by acute articular rheumatism; and in 1840 he asserted that he had seen endocarditis, or endopericarditis, in sixty-four out of seventy-four cases of acute rheumatism treated by him.

Dr. Hope considered that pericarditis, or endocarditis, or both, were seen in upwards of half the cases which occur of acute rheumatism.

Dr. Macleod stated that pericarditis occurred in eighteen out of eigty-five cases treated in St. George's Hospital

during a period immediately anterior to the delivery of his Gulstonian Lectures in 1837.

Of 136 cases of acute rheumatism, under the care of Dr. Latham in St. Bartholomew's Hospital, between the years 1836 and 1840, the pericardium was affected in eighteen.

In forty-three cases of which accurate notes were preserved by Dr. W. Budd, there were five instances of the occurrence of pericarditis.

Of seventy-five cases of acute or subacute rheumatism treated by Dr. Taylor, in University College Hospital, six had acute pericarditis of considerable severity—two in a slight degree, and in two its existence was doubtful.

Thus the proportion in which the external serous investment of the heart has been remarked by various English observers to become implicated in acute rheumatism, varies from one in five to one in nine cases. The ratio in which affections of the heart of all kinds are met with is, of course, much greater. Thus Dr. Taylor found some disease of the heart to exist in one-half of his cases; Dr. W. Budd in four-sevenths; and Dr. C. J. B. Williams in three-fourths, of the cases of rheumatism examined by him. Much difficulty arises, however, in estimating the proportion of cases of endocarditis, from the circumstance that the diagnosis of the disease has been practically founded upon the presence or absence of a valvular murmur. The insufficiency of this criterion is shown by the fact, that of 1026 patients taken indiscriminately from those admitted for all diseases into University College Hospital, Dr. Taylor found a cardiac murmur to exist in 413, or 37 per cent.

Two of the cases referred to above arose from extension of inflammation from an adjoining texture. This is an important cause of pericarditis. Of twenty cases of old adhesions of the pericardium, analysed by Dr. Taylor in the paper referred to, pleurisy appeared to have been the cause of the disease in five, and possibly in seven instances.

Of eleven cases of pericarditis recorded by Morgagni, seven are examples of the complication of the disease with pleurisy or pneumonia, single or double.

In one case the only assignable cause of the disease was the existence of that state of the system present in Bright's disease of the kidney; and in two others this cause was associated with rheumatism, slight in one case, acute and severe in the third. The merit of discovering the fact of the tendency of this form of renal disease to light up pericarditis, as well as other inflammations, belongs to Dr. Taylor, in whose admirable essay is contained a mass of information upon the subjects cursorily passed over in this paper. Of 31 cases of pericarditis which fell under his personal observation, nine were certainly complicated with Bright's disease of the kidney.

Two of the last group of cases, presenting several features of interest, will be detailed at length, and made the subject of special comment.

—

J. C., a young man, aged twenty-one years, came under treatment in the autumn of 1848. He was of middle stature, slight conformation, leucophlegmatic temperament, and a weaver by occupation. He had undergone the usual vicissitudes of his class, being sometimes in full of employment and faring well; at others, being out of work and barely able to procure the necessaries of life. His habits were of average moderation and regularity. His friends had noticed for several months that his health appeared to be failing; he became paler and thinner than he had formerly been, and his disposition underwent a change; an aversion to exertion of every kind took possession of him, and gradually increased, until he fell into a state of torpor. In this condition he would sit for hours without speaking; he replied to questions reluctantly and in monosyllables, and for some weeks he had shown much drowsiness, and slept heavily. About a fortnight before he came under my notice, he sustained a slight injury to his face, which gave rise to considerable inflammation, for the relief of which active purgatives were given. In a day or two afterwards he began to complain of a sensation of coldness, pain in the back, limbs, head, and his appetite failed.

When I saw him, he had the aspect of a person who had long suffered from bad health, being much emaciated. There was no œdema of any part of the body. His intelligence was rather slow than obtuse; his countenance was heavy,

his face and lips pale; he complained of great prostration of strength, headache, and pain in the limbs; his sleep was broken, and disturbed by dreams; his tongue was covered with a moist creamy fur; he had occasional sickness, almost complete anorexia, and his bowels were confined. He had no pain about the chest; no cough nor dyspnœa; his pulse was 90, regular, and of only moderate fulness and strength; his chest expanded well, and the breath and pulmonary stroke-sounds were healthy; but the cardiac dulness on percussion extended over a larger surface than natural; and this was more prominent than the corresponding part upon the opposite side of the chest. The impulse of the heart was somewhat strong and a faint thrill was communicated to the hand; over its base the heart's sounds were not perfectly healthy, the first being somewhat murmurish; over its apex a rough, irregular, creaking, double-friction sound was heard, which, in passing to the right and left of this point, became single and gradually inaudible. There was no marked heat of skin, nor thirst. He was not confined to bed, but, on the contrary, sat up during the whole day. His urine was abundant, pale, acid; sp. gr. 1010: and on one occasion only was it found to be slightly albuminous.

Treatment and progress of the Case.—As it was evident that the cardiac disease was of some duration, and his enfeebled state forbade the idea of depletion being entertained, the treatment consisted in the repeated application of blisters over the region of the heart, and the careful employment of mercury: whilst it was attempted to sustain his strength by light and nourishing food, of which, however, he could take but little. On being repeatedly interrogated, he sometimes, admitted that he felt pain about the lower part of the ensiform cartilage and between the shoulders, and he had occasional palpitation of the heart. He had never any cough, and little, if any, dyspnœa; his pulse ranged from 90 to 120; it became small and feeble, but remained regular; his urine was constantly pale, and of low specific gravity. He was never brought under the influence of mercury; for after its exhibition for a few days, an attack of dysentery compelled its withdrawal, and the simultaneous complete failure of any disposition to take food left him in such an exhausted condition that he died in a state of imperfect coma about twelve days after the commencement of the treatment. He was not confined to his bed until the last few days of his life. About a week before his death, numerous purpuric spots appeared upon his arms and legs. The friction sound remained audible until three days before his death. He never had delirium, or any other cerebral symptoms but those above mentioned.

Examination of the Body forty-eight hours after Death.—There was a high degree of emaciation. The head was not examined.

Chest.—There was some slight old adhesions of the left pulmonary and parietal pluræ: there was no effusion into the plural sacs. The lungs were somewhat congested, inferiorly and posteriorly, but were otherwise perfectly healthy. The heart was larger than natural, weighing ten ounces. Over its base and the greater part of both its anterior and posterior surfaces, the pericardium was adherent by means of a thick layer of tolerably firm lymph; the connections, however, were broken down without much difficulty, and the opposed surfaces were left covered with irregular masses of red exudation matter, in some places a third to half an inch in thickness. Near the apex were some flakes of softer lymph; and between the unadherent portions was contained about an ounce of bloody serum. The walls of the heart were rather soft, and of dark red color; but near the base, on the posterior aspect, there was a spot of the size of a shilling, where they were thin, and of a pale buff color, which was proved by subsequent examination to depend upon a deposit of fat; upon the corresponding pericardial surface there was a small clot of extravasated blood. The inner surface of the heart and aorta was stained of a deep red color, and the free margins of the aortic valves were slightly thickened, and the endocardium in their neighborhood had lost somewhat of its transparency.

Abdomen.—The kidneys were slightly above the normal size; firmer than natural: the cortical part was pale, and the distinction between it and the medullary portions less strongly marked than usual.

E. B., a tall, delicate-looking girl, aged 16 years, was first seen by me in the spring of 1850. Born and brought up in a country district, she always enjoyed good, but not robust, health, until the commencement of her present illness. Her father died in middle life, after suffering long from cough and shortness of breath: her mother was still living and in good health. The catamenia first appeared about fifteen months previously, and returned regularly for a year. She had been in service for a short time, in a situation where her work was by no means heavy; but about twelve months before the time of my seeing her, she obtained employment in a cotton factory; here she remained eight months, during which her health progressively declined, and at the end of which she began to suffer pain in the feet, ankles, and knees, which at length compelled her to give up her occupation, as she became unable to stand. She went to the sea-side, and whilst there, she was first sensible of a degree of shortness of breath and increased action of the heart. On her return home, she began to suffer from pain in the shoulders and hands, which became red and swollen; on any exertion, her breathing was embarrassed, and she had occasional attacks of palpitation of the heart. When I first saw her, the rheumatism had subsided, but there was considerable œdema of the lower extremities. Her countenance was expressive of much anxiety; her lips were pale, but her cheeks of purple hue. She complained of weakness, but was able to remain out of bed during the whole day. When in a state of quietude she enjoyed a tolerable amount of comfort; but on being the subject of motion or excitement of any kind, she had paroxysms of dyspnœa and palpitation of the heart, which left her in a very exhausted condition. She had some cough, and expectorated a small quantity of semi-transparent watery mucus. On examination of the chest, a muco-crepitus rhonchus was heard over the lower part of the lungs, inferiorly and posteriorly, but it was not accompanied by any dulness on percussion, nor was the breath-sound elsewhere or otherwise modified. The cardiac region appeared more prominent than natural, and a purring tremor was felt on the application of the hand The heart's impulse was sharp and forcible, raising the anterior walls of the chest for a considerable extent during a fit of palpitation. A dull sound on percussion was noticed from the upper border of the third rib to the inferior margin of the chest vertically, and from the right of the sternum to the left of the mamma transversely. On ascultation, a soft to-and-fro sound, of the rubbing type, was heard over the whole of the cardiac region with more or less distinctness, perhaps most loudly over the base of the heart: the natural sounds were nowhere heard. Over the base, a soft, double, blowing murmur, was heard, which continued audible at the top of the sternum. The pulse was small, rather jerking, generally very rapid, averaging 120 to 140 beats per minute. The tongue was moist and somewhat coated; the appetite moderately good; the bowels generally confined; the urine scanty; acid, sp. gr. 1030, with a copious deposit of the lithates, and not albuminous.

Treatment and progress of the case.—As in the former case, the patient's condition did not warrant the employment of active means; but resource was had to the repeated application of small relays of leeches, followed by blisters. A mercurial preparation was administered at bed-time; and a draught, containing nitrate of potash and the tincture of digitalis, was taken two or three times during the day; whilst the strength was maintained by a light, nutritious diet. For a short time this plan of treatment appeared to be attended with more success than might have been anticipated: the heart's action became more tranquil, the breathing less hurried, and the anasarca subsided. The morbid cardiac sounds remained, however, to the last period at which they were investigated, the same as when the patient first came under notice. After being under my observation for about a month or six weeks, she expired suddenly one morning immediately after going down stairs, and without having made any previous complaint of increased indisposition.

Examination of the body.—There was some but not a striking amount of emaciation present.

The head was not examined.

Chest.—There were several old adhesions between the pulmonary and parietal pluræ on both sides of the chest,

and each plural sac contained 4 or 6 oz. of clear serum. The lungs were pale and spongy superiorly; dark-colored and gorged with serum inferiorly. The cellular tissue of the anterior mediastium presented an unusual degree of vascularity. The pericardium was much thickened, and contained about 2 oz. of somewhat turbid serum; its opposite surfaces were adherent in several situations over the base of the heart; elsewhere they were covered with small, mamilliary, projecting processes of tolerably firm lymph, each being two or three lines in length, and observing a very regular arrangement, being mostly distributed in a longitudinally linear direction; they were present on both the anterior and posterior surfaces of the heart; where they did not exist, the pericardium was thickened by the deposit of lymph in the form of laminæ, in some situations to the extent of three or four lines, and it was everywhere devoid of its usual polish and transparency. The heart itself was much enlarged, weighing 17 oz. The walls of the left ventricle were about nine lines in thickness, and its cavity was dilated. On being tested, the aortic valves allowed free regurgitation into the ventricle. The endocardium in the neighborhood of both setts of valves was opaque and thickened. The mitral valves were also thickened, and presented along their margins a uniform fringe of fine clustered granules of lymph, of the size of millet seeds. The aortic valves were also covered upon their internal surface and free margins with similar granules. The right auricle was capacious, but all the valves on the right side of the heart were healthy. Both auricles and ventricles were extended with coagula of black blood.

Abdomen.—The liver was much larger than natural; it was gorged with dark blood, which exuded copiously on incising the organ. The congestion extended to both portal and hepatic systems of vessels; the inter-lobular spaces were wider than natural, and appeared to be occupied by a deposit of new matter.

The spleen was rather large, and almost divided by fissures into three or four parts.

Both kidneys were enlarged; the increase of size being chiefly in length, so that they had a singularly elongated form; in texture they were very firm; in color rather dark externally, where the venous polygons were very apparent; the cortical substance had an obscurely granular aspect, and was evidently the seat of some adventitious deposit.

Remarks.—1. The most remarkable feature in the case narrated above is the latency with which the pericarditis must have advanced. In both it existed in a high degree, but in one it occasioned no local uneasiness, and its presence was revealed by the physical signs alone; and, in the second case, it was not until the heart had become so damaged as to be unequal to its office, that the patient's sufferings compelled her to apply for medical assistance.

Modern pathologists are well acquainted with the fact, first noticed by Hoffmann and Baglivi, that inflammation may exist unaccompanied by either local or general symptoms. The circumstances under which it presents itself in this covert form is various, but have been supposed to consist chiefly in a languid and feeble state of the constitution, and a defective condition of the nervous sensibility: it is also probable that some thing must be attributed to the kind and character of the inflammation itself.

That pericarditis affords a not unfrequent conformation of this statement has been remarked by several writers upon the disease; and by none has this been more strongly stated than by Andral, who says:—"Mais souvent aussi elle peut exister sans produire ni ces symptômes, ni aucun autre; de telle sorte que pendant la vie rien ne porte à soupçonner l'existence d'une affection du cœur ou de ses dépendence, et que ce n'est qu'apres la mort qu'on reconnâit cette affection."

2. The subject of the first report had given evidence of declining health for some time before his death. The change in his disposition, the gradually increasing torpor, the paleness and emaciation, were doubtless owing to failure in the assimilative process, and the formation of the blood of unhealthy quality with the consequent change in the structure of the excreting organs, and of the kidneys in particular, the imperfect action of which again reacted upon the constitution of the blood, and added to its impurity.

The altered character of the blood was still further displayed, as the disease advanced, by the occurrence of numerous large purpuric spots upon various parts of the body.

3. Almost the only indication of the nature of the primary and constitutional disease was afforded by the state of the urine, which was abundant, pale in colour, and of low specific gravity. Although several times tested, on one occasion only was it found to be albuminous. No œdema of any part of the body was present. The case thus confirms an observation which has been made by others, that considerable disease of the kidneys may exist without either dropsy or serous condition of the urine.

4. The existence of pericarditis was revealed by the physical signs; and, as before remarked, by those alone. Previously to the discovery of the attrition sounds in pericarditis, great importance was attached by writers to the state of the pulse, and the action of the heart, as diagnostic of the disease. The pulse was often described as being small, fugitive, indistinct, and intermittent: the action of the heart was stated to be frequent, tumultuous, and irregular, both in force and frequency. In the case under review the pulse was invariably regular, and of no remarkable frequency until a short time before death. It appears probable that the state of the pulse is mainly influenced by the amount of liquid effusion. Thus it is stated by Dr. Watson, in his excellent Lectures, that the pulse will be feeble, and more disposed to falter, and to become irregular, as the liquid effusion is large; but when the solid productions of inflammation predominate—when there is coagulable lymph and but little serum—when the pericardium, instead of being distended, becomes attached to the heart—then the pulse will retain that form and regularity with which the disease commenced.

Throughout the course of the complaint a remarkable degree of drowsiness existed. A tendency to coma is so frequently observed in the course of Bright's disease of the kidneys, that it is considered one of its recognised terminations. It has been generally ascribed to the circulation of urea and other effete matters in the blood.

5. The post mortem examination of the body disclosed the existence of both old and recent pericarditis, with some enlargement of the heart, and signs of former endocarditis. It is probable that the hypertrophy of the organ was occasioned by the first attack of inflammation of its serous membranes, and this may have taken place some months before death. The recent inflammation of the pericardium had been of an hæmorrhagic character; thus confirming an observation made by Dr. Carswell, that this form of disease is rarely seen except when a recent supervenes upon an old attack. The kidneys presented one of the forms of Bright's disease of that organ; they were somewhat increased in size, and firmer than natural, from the deposit in their texture of new matter apparently of an albuminous or oleo-albuminous nature.

The causes of the disease seem to have been almost, if not altogether, of the predisposing or constitutional class, as no obvious exciting cause could be detected. Being of strumous habit, there existed in the patient a strong tendency to impaired nutrition, which his past life was well calculated to strengthen: for sudden and violent changes in the mode of living are scarcely less prejudicial than the continued use of an insufficient diet. The attention of the profession has been especially directed by some late writers—amongst whom may be mentioned Chomel and Taylor—to the importance of considering more fully the internal or predisposing causes of disease; and it must be admitted that, in cases like the present, what chiefly engages our notice is, in all probability, but the more striking manifestation of changes which have been long in progress, and results which have been slowly accumulating.

6. The second case was of more complex nature, both renal and rheumatic disease existing; but the pericarditis was equally latent. Probably, in consequence of the double causative agency in operation, the structural changes in the heart was more considerable than in the first case.

The physical signs were conclusive as to the existence of pericardial inflammation, and also disease of the aortic valves: the only point upon which a doubt could be entertained was with re-

ference to the cause of the extended dulness on percussion over the region of the heart. Was this owing to liquid effusion in the pericardium, or to increased volume of the heart? The presence of pericarditis being admitted, the first supposition appeared the more probable, as the occurrence of a friction-sound by no means precludes the possibility of the existence of a considerable quantity of fluid in the pericardial sac. But this view was opposed by the following considerations:—(*a*) If produced by liquid in the pericardium, the heart's impulse would have been more feeble and distant than was the case; (*b*) although the dulness rose upwards to a greater height than natural, it extended much more to the left than in the normal state, which is the character of hypertrophy of the left ventricle; and moreover (*c*), no undulatory movement was ever observed. There was signs, in addition of congestion of the lungs; but of the renal disease there was no evidence; the urine, when examined, presented the rheumatic character; and the dropsy both by its situation and amount, was referable to the state of the heart. The pulse constantly maintained a very high frequency, although digitalis was administered for a time being never below 120, and often rising to 140 beats per minute. The occurrence of this state of the pulse in chronic pericarditis has been especially noticed by Andral.

7. The examination after death showed, that, as in the previous case, both old and recent pericarditis had existed: to the former of which, and to the inflammation of the endocardium, the great hypertrophy of the left ventricle must be ascribed. The products of disease were found also in the liver and kidney, an adventitious deposit being present in them. The general implication of these organs was probably owing to the one common cause—an unnatural condition of the blood, arising from imperfect assimilation; and it would appear that in such and similar states of the system that these covert inflammations are peculiarly apt to manifest themselves. That view of the process of inflammation seems most tenable which regards it as a modified nutrition; the several tissues and organs being supplied with a reproductive fluid not adapted to their requirements, give evidence of it by erroneous growth. Both the vital and physical properties of the blood-vessels undergo a change, and permit the exudation of plastic matter of various endowments. In proportion as the nutritive material is less adapted for the healthy reparation of the parts through which it passes, so will be the tendency to increased or irregular circulation. Hence it is probable that the state of the blood, in the class of diseases under consideration, is peculiarly ill-suited for the healthy nutrition of the serous membranes of the heart, as appears from the frequency with which they become diseased.

These considerations may assist us in understanding how it is that in one case severe pain and great distress are produced by the existence of disease in the heart or its membranes, and in another little or no suffering is experienced for a considerable length of time. In examples of the latter description, the changes are slowly and gradually produced; often occurs in subjects the volume of whose circulating fluids has been reduced, whilst the nervous sensibility has lost somewhat of its acuteness, in consequence of the mal-nutrition of the organs upon which it depends.

8. As in the former case, the constitutional causes of the disease seem to have been influential in bringing on the attack, which was widely developed, and preceded by a long course of imperfect health.

9. But little need be said respecting the treatment of these cases. The indications in both were the same—to subdue the inflammation, promote the absorption of the matter exuded, and to maintain the patient's strength. A disease of long continuance cannot be met by heroic remedies; changes of structure are produced against which the powers of medicine are often in a great degree, if not entirely, impotent. All that can be fairly attempted is, whilst cautiously pursuing the curative indications, to endeavour especially to maintain the constitutional powers, which may eventually place the system in some degree of harmony with lesions which must be permanent. But when an organ like the heart has been seriously injured, and this is accompanied by a damaged condition of the great excreting organs, the treatment must be

more hygienic than medical, and consist in ensuring as much tranquility and repose as possible, and avoiding all modes of living likely to tax the already enfeebled depurating powers—*Lon. Gaz.*

On the use of Phosphorus in Diseases of the Skin.—There is a remedy which exercises a powerful influence on the cutaneous exhalents, and which I can specially recommend in the treatment of the more rebellious forms of diseases of the skin—namely, phosphorus. My attention was first directed to this remedial agent during the period of the cholera in 1832, and I then found it successful, when every other remedy had failed, in several cases of that disease, where the vital powers seemedexhausted, and the patient in the lowest stage of collapse. In these cases, it appeared to act as a violent stimulant, principally through the nervous system, accelerating the circulation, and exalting the muscular irritability in the highest degree. I can now recommend it as one of the most valuable medicinal agents we possess in those inveterate cutaneous diseases—leprosy, psoriasis, lupus—in which the skin seems to adapt itself to the morbid condition, which it retains with singular tenacity against all the usual methods of treatment.

The *phosphorous* treatment of these maladies may be either internal or external. The best method of administering the remedy internally is dissolved in oil or ether, and the phosphorated oil or ether then mixed up with powdered gum arabic and mint water. Camphorated lard is the most appropriate vehicle for applying phosphorus externally. Its energetic revulsive properties may likewise be turned to account in certain diseased conditions of the skin. Phosphorus, the iodide of arsenic, cantharides, and the biniodide of mercury, are the most powerful internal remedies for skin diseases we possess.—*Dr. Burgess in Monthly Journal.*

On the Pathological Expression of the Dumb-Bell Crystals in the Urine. By Dr. Fricke and Dr. Wilson.—In the *American Journal of Medical Sciences*, July, 1850, Dr. Fricke calls in question the generally received opinion, first promulgated by Dr. Golding Bird, that the dumb-bell crystal is indicative of the presence of oxalate of lime in the urine. Dr. Fricke says, that he has for many reasons doubted the correctness of this view, and that they are, in reality, but disintegrated crystals of uric acid.

[The opinion that the dumb-bell is not characteristic of oxalate of lime, as is supposed by Dr. Golding Bird, but is a modification in the crystallization of urea, is confirmed by some observations by Dr. Morris Wilson, from which he has elicited the following interesting facts:—

Firstly. That dumb-bell crystals are very frequently developed as the result of certain modifications of uric acid.

Secondly. That it is not to the salts of urine alone that this formation is confined, they are frequently met with in solutions which have no organic origin, and in a variety of salts.

The author continues:—]

I should perhaps premise, that although nature seems to accomplish her ends without effort or excess, and sometimes most unexpectedly, it is occasionally very difficult, in prosecuting experiments, to arrive at satisfactory results. I am led, however, to the conclusion, that the form of the dumb-bell crystal depends upon a specific but independent force, developed under certain determinate circumstances, consentaneously with that of homogeneous attraction or aggregation.

I have observed, that when spicular crystals commence forming upon a centre, after stretching some little distance in a straight line, they begin to branch and spread outwards; and that as this lateral force is more or less vigorous, that of extension is arrested, and the tuft of spiculæ spreading from the central point, assumes the flattened globular shape, in a proportionately complete degree, and the same action taking place at both ends of the primary crystal, constitutes the dumb-bell form. It appears to me that this effect arises purely from the agency of electricity; and that, as an arranging power, it is quite separate and distinct from that of aggregation, and depends for its influence upon the repulsive force manifested towards each other by similarly electrified bodies.

But it is not my intention to enter into the very interesting subject of crystallization generally, many new phenomena

of which actual examination by the microscope has taught me, but to confine myself to the form and construction of the dumb-bells of uric acid. Uric acid and oxalate of lime occur very frequently together in the same deposit, and from their combined presence very different forms of dumb-bell crystals are found together; it is, therefore, of the first importance to separate each salt carefully, before proceeding to subject it to experiment.

While analyzing some urine of high specific gravity, and in which there was a copious precipitate of uric acid, I added a solution of caustic potash in sufficient quantity to dissolve the deposit. The urine thus treated was twice filtered; a light flocculent cloud of uric acid, in combination with potash, made its appearance in a very short time, and gradually subsided to the bottom of the vessel. The supernatant fluid being decanted off, hydrochloric acid, in great excess, was poured suddenly upon the sediment, which after a rest of about a quarter of an hour, was found converted into a thin layer of opaque dark-brown uric acid dumb-bells. These differed in the most marked degree from the dumb-bell of oxalic origin by their great insolubility in water. But the experiment is open to the doubt that an oxalate might have gained entrance.

I then separated some highly crystallized uric acid from the urine in which it was deposited, and washed it thoroughly with large quantities of warm water; it was then dissolved in pure caustic potash, and filtered through paper. On adding strong hydrochloric acid in excess to this solution, dumb-bell crystals were deposited, some being of very perfect form, others not so.

Some pure lithic acid was dissolved in concentrated sulphuric acid; to this solution two-thirds of water were added, and there occurred an instantaneous precipitation of imperfect dumb-bells. To show the difficulties of this kind of demonstration, and the changes likely to result from varied circumstances, a small quantity of this concentrated sulphuric solution being dropped into a large bulk of water, the resulting deposit consisted of thin broad plates, the two edges of which, in the longitudinal direction of the spiculæ, were considerably thickened, forming ridges; but these plates, when rolled over on their thin edges for examination, also presented a dumb-bell form, though from their narrowness it was impossible to retain them on the edge.

The dumb-bells to which I wish to call attention and give a description are those obtained in the deposit caused by the addition of hydrochloric acid to the potash solution. My reason for so doing is, because I have observed the same forms as a natural deposit among uric acid; and these, although of such a remarkable form, have, I believe, until the present time, been left undescribed.

They consist of a thin translucent plate, of an oval or rhomboid form, having a slight elevated ridge running along their middle in the direction of the long diameter, and from near the extremities of which extend two compact kidney-shaped crests of thin spicular crystals, their long diameter being across the plane of the translucent plate. A transverse section of one of the kidney-shaped crests would present an oval outline.

From the way in which the weight is arranged—namely, in the centre of the crests—the crystal has, while under the microscope, a tendency to float with the edge of the thin plate turned towards the eye of the observer. Circumstances, however, occasionally seem to dispose the face of the thin plate to be directed upwards, and then, without a close and careful examination, by rolling the crystals over, their dumb-bell shapes might escape the eye of the microscopist, and seem to represent only rhomboid plates of uric acid.—*Lancet, Oct.*, 1850.

Yeast in the Treatment of Scarlet Fever.—Mr. Bennet, of Gateshead, states that during an epidemic of malignant scarlatina which came under his notice in 1847, he found no plan equal to that of giving fresh yeast. He says that after ammonia, the mineral acids, chlorate of potass, and even nitrate of silver to the fauces, have failed, he has found one or two table-spoonfuls of fresh yeast, given frequently, to be rapidly efficacious. [There is nothing new in this. —Ed. P.J.]—*Medical Gazette, Jan.* 10.

SURGERY.

Excision of the Head of the Femur. At a recent meeting of the Medical Society of London a paper on this important operation was read by Mr. Haynes Walton.

After remarking upon the diversity of opinion concerning the propriety of this operation, the author said, the leading question was, at what stage of the disease the operation should be performed. There were two considerations to be taken into account—1, the local; 2, the constitutional. With reference to the first, he thought, when the discharge was excessive, thin, dark, and of bad odour; in respect to the second, when there was much hectic fever. If, on examination, disease of the internal organs could not be discovered, especially of the lungs, the operation should take place. There was a question whether disease would not sooner or later come on in these from the effects of the local disorder upon the constitution, if the local mischief were not removed.

The author did not consider the acetabulum to be so often diseased in morbus coxæ as the head of the femur; and that, when diseased, it had greater power of reparation.

He believed non-dislocation of the head of the femur to be diagnostic of soundness of the acetabulum; and that, by exploratory incision, or by passing the finger through a sinus, the state of the acetabulum might often be discovered. If there were no disease in the acetabulum, the operation would most probably be successful, although cases had turned out well where there had been disease in that portion of the joint. Out of fourteen cases, twelve of which had been collected from different sources—the other two having occurred in his own practice—six had proved fatal; one had died from renal disease, another from hæmorrhage from the profunda vein, another from diarrhœa: the cause of death in the other three was not given.

The operation was in reality much less severe than it appeared to be. The wasted state of the parts facilitated the operation, while the loss of blood was remarkably small.

The author did not advocate removal of the trochanter as well as the head of the bone. The long interrupted splint was the best apparatus to apply after the operation.—*Lancet.*

Ununited Fracture treated by Electricity. By Dr. Lente.—N. R., aged 25, admitted with simple fracture of the left femur, about the middle, with shortening an inch. Various plans were tried to ensure union, but these failing, some through the perverseness of the patient, the limb was eventually secured in a double inclined plane, so arranged that the integument over the seat of fracture was exposed. Electro-galvanism was applied three times a week, together with acupuncture, the needle being passed to the periosteum on each side. This treatment was continued near four months, when consolidation appeared to be taking place, and in six weeks more the union was firm.

The second case was that of a female, aged 35, with ununited fracture of both bones of the left leg. The limb was applied in the fracture-box, and as there was considerable inflammation, cooling lotions were applied until the swelling had subsided. Partial union ensued, but as it did not become firm, electricity was employed, as in the former case, and with similar success.

After narrating a third case, Dr. Lente remarks that he considers electricity to be a valuable agent in such cases, but it requires to be combined with acupuncture. It appears, he observes, to have but little effect when the poles of the battery are merely applied to the soft parts, as the current does not then appear to reach the bones.—*New York Journal, November,* 1850.

Tetanus from laying open an inflamed Bursa.—The following case affords a severe lesson as to the impropriety of opening the enlarged bursa of the knee to which housemaids are subject:—

The patient was of the age of 23, of a sanguineous temperament and hasty disposition. She was admitted into Guy's Hospital under Mr. Hilton, for an inflamed bursa, accompanied by febrile disturbance. The swelling was incised, and a small quantity of pus escaped. Poultices were applied, but the wound did not assume a healthy action, and it became necessary to extend the in-

cision, to allow of the escape of some sloughy matter. After this she improved, until the sixteenth day, when about five P.M. she began to complain of stiffness of the neck and jaws, which she attributed to cold. Next day the stiffness had extended, and the pulse had risen to 110. She took calomel and opium, and aconitine was rubbed into the spine, in the proportion of one grain to the ounce of spermaceti, half a drachm being used at each friction. In spite of this, tetanic symptoms became more and more pronounced, and she died in a paroxysm on the seventh day.

It was observed that the aconitine was of great service in relieving pain, but had no control over the progress of the disease.—*Lancet, Nov.* 30, 1850.

Syphilis in Animals.—The highest authorities have always considered syphilis as a disease peculiar to man, and incapable of being communicated by inoculation to animals. Hunter and Ricord were both of this opinion. In 1844, however. M. Turenne informed the Academy of Sciences that he had succeeded in inoculating a young monkey, and even presented the animal to the Surgical Society. The medical public ridiculed the assertion, and, even so late as the present year, M. Ricord professed his belief that it was impossible to transmit the malady to animals. M. Turenne, not discouraged, continued his experiments. On the 5th of June last, some virus was obtained from Ricord's Hospital, and a monkey inoculated with it in the presence of several members of the German Medical Society of Paris. Ulceration was soon produced, and to test its nature, Dr. DeWelz, agregé of the Medical Faculty of Wurzbourg, resolved on inoculating himself with some pus taken from one of the sores on the monkey. This was done on the 9th of June. On the 13th, M. Ricord examined the sore produced, but declined pronouncing on its nature. On the 14th, M. Ricord himself inoculated Dr. DeWelz a second time, and on the 15th, recognized the first sore as a true venereal chancre. On the 18th, the characters of the sore were so well marked, that M. Ricord presented M. DeWelz to his class, confessing that the experiments of M. Turenne had fully confirmed the fact of transmission to animals. M. M. Velpeau, Cullerier, and other medical men, examined the sore, and agreed that they were true chancres. The question, then, appears to be decided.—*Western Lancet and Hospital Reporter.*

Galvanism in Surgery—The Electric Moxa.—Galvanism has lately been used at Guy's Hospital to promote the cicatrization of a very obstinate ulcer; and in thus having recourse to a galvanic current, Mr. Cooper is reviving a method which he had applied in the same institution, under similar circumstances, several years previously. We heard Mr. Cooper state, in a clinical lecture, that his attention was formerly directed to the electric moxa, by Dr. Hull of the United States of America. Dr. Hull's object was principally the restoration of skin where much integument had been lost around ulcers, &c.; and he used to place the positive pole of the battery on some part of the body, and the negative on the ulcer. Mr. Cooper was induced to try the electric moxa at that period, and obtained very favourable results. The battery, having, however, proved cumbersome, Dr. Golding Bird introduced the simple method of using two plates, one of silver and the other of zinc, connected by copper wire. The latter apparatus has, as we stated above, been employed with remarkable success in a patient affected with an obstinate ulcer, and we proceed to give an outline of the case, aided by the notes of the dresser, Mr. Kirkman.

The patient is a strong and robust young man, aged 22, and of temperate habits, who was admitted under the care of Mr. Bransby Cooper, September 11, 1850. He stated that two years previous to his admission, whilst rabbit-shooting, the gun of a friend who accompanied him accidentally went off, the latter being at the time about two yards from him. The charge of the shot passed obliquely through the soft parts of the right instep, and injured the navicular bone. He was at once conveyed to Guy's Hospital, where he remained about seven months, under the care of the late Mr. Key. During the treatment several pieces of bone came away as often as two or three times a week. At the suggestion of Mr. Key, the patient left the hospital, and went

into the country for the improvement of his general health, the wound not being at that time quite cicatrized.

Though he gained strength and the foot improved, the wound never completely healed up, and some time before his second admission it began to increase in size, so that when placed under the care of Mr. Bransby Cooper, it was about the size of the palm of the hand. This ulcer was situated on the inner side of the right foot, and below the ankle; it was of a triangular shape, and presented an indolent and atonic appearance, the granulations being situated much below the margins.

Carrot poultices were first used, and leeches were from time to time applied round the sore. Warm water dressing was subsequently employed, and the patient took sarsaparilla; but this treatment, continued for about six weeks, proved unavailing as regarded the cicatrization of the ulcer.

At this period Mr. Cooper ordered the electric moxa to be applied; this was done in the following manner:—A small oval piece of blistering plaster, about the size of a crown-piece, was placed six inches above the sore. On the following day, a blister having formed, the cuticle was removed, and a plate of zinc, previously cut so as accurately to fit the vesicated surface, was applied on the same. A silver plate was then placed on the original sore, and the two metallic agents connected with a copper wire. This simple apparatus was secured on the limb by means of a few narrow strips of adhesive plaster, the whole being covered with wet lint, and a loose bandage, which latter was kept constantly moist.

On the next day the silver plate was raised for the purpose of examining the sore, and a most decided improvement was observed, the granulations looking more healthy and active. On the second day, however, (the moxa having remained in contact with the limb for forty eight hours,) there was pain and considerable redness over the whole leg, with enlargement of the inguinal glands. The moxa was therefore removed, the stimulating effects having evidently caused inflammation of the absorbents; yet the original sore had a more healthy appearance, and was evidently decreasing in size. On the fifth day the inflammatory symptoms had considerably subsided, and the sore was improving fast. On the ninth all pain and redness in the leg had disappeared, and a slough separated from the blistered surface to which the zinc plate had been applied. The original ulcer was found much decreased in size, being now no larger than a crown-piece; the granulations assumed a healthy appearance; they rose to the level of the margins, and were covered and protected towards the centre of the sore by a whitish layer of healthy pus. The borders were becoming flattened and regular, and the gradual extension of the cuticle could be distinguished within them.

The cicatrizing process went on uninterruptedly for several weeks, until the 7th January, 1851, about four months after admission, when the ulcer was quite healed up, and the patient left the hospital in good health. He was, however, recommended not to bear the whole weight of the body upon the leg for some time to come, and allow the soft parts about the ankle to gain tone before he used them freely.

In reviewing the various facts connected with this case, one is involuntarily led to ask whether the galvanic excitement acted directly on the sore, or indirectly through the vascular disturbance which was brought on by the continuous presence of the moxa for forty-eight hours. That erysipelas has repeatedly been conducive to the disappearance of congestion in internal organs or external parts is well known; nor are there examples wanting of artificial ulcers aiding in the cicatrization of long standing sores, so that the influence of the electric moxa seems at first sight more likely to have been exerted indirectly than directly. Still it must be conceded that this indirect effect may be of a peculiar nature; further trials will probably settle the point.

Whilst on the subject of the therapeutic uses of galvanism, we should not omit to mention the galvanic poultice lately proposed by M. Récamier of Paris. It has successfully been used for neuralgic and rheumatic pains, &c., and consists of a piece of cotton-wool, containing a layer of minute fragments of zinc, and another of particles of copper; the wool, being properly sewn up, is placed in a bag, one surface of which

is of cotton, the other of an air-tight tissue. The permeable surface of the bag is then applied to the skin, and fixed by a roller or a towel; heat is soon developed; the perspiration retained by the air-tight texture, accumulates; it moistens the bag, and this moisture, which is acid, acts on the zinc and copper placed in the cotton-wool.

Thus the two metals are acted upon by a dilute acid solution, just as they are in the trough or the pile, and a certain amount of electricity is disengaged.—When the skin is very dry and unperspirable, a piece of flannel dipped in a solution of common salt, and then wrung out, is placed between the galvanic bag and the skin. Electricity is given off to such an extent, that it acts like a mustard-poultice, though there is no pain, but merely a pricking feeling of warmth. Time will shew whether M. Récamier's galvanic poultice acts otherwise than common counter-irritants.—*Lancet.*

Cysticercus Cellulosus. By Augustine Prichard *Esq., Bristol.*—Emily Collins, a healthy young woman, 22 years of age, admitted March 28th, 1850, complaining of a small rounded tumour in the inner canthus of the right eye. It was about the size of a pea, and situated anteriorly to the lacrymal sac, and of course superficial to it. It was moveable, slipping readily backwards out of reach into the orbit, but was retained without difficulty in its place by pressing the finger nail behind it. She observed it two or three years ago, and it became larger in the spring.

As it did not appear to be of sufficient importance to require immediate surgical interference, some stimulating ointment was given to her for daily use, and she was directed to apply again if it increased in size. In a few months she became very anxious for its removal, on account of deformity which she fancied it occasioned.

Having observed, from the blue and semi-transparent appearance of the little swelling, that it contained clear fluid, I determined to remove it entire, to prevent the chance of recurrence, and to preserve it for careful examination; I therefore made a small vertical incision over it, intending to dissect it out; but after the 2nd touch with the knife a clear vesicle presented itself, and gradually escaped from the opening. It was somewhat larger than a pea, and very transparent, with a round opaque spot on one side. After exposure to the air for a short time it became altogether opaque, but upon allowing the fluid to escape, the form of the cysticercus became at once evident, and examination by the microscope verified this opinion.

Two days after, the little wound was healed, and I have not seen the patient since.—*Prov. Med & Sur. Jour.*

Diagnosis of Phlegmon of the Anterior Walls of the Abdomen.—M. Bernutz (*Archives Generales,* June, 1850,) states that at its origin, deep-seated phlegmon of the abdominal walls is indicated by sudden pain and gastric disturbances, as nausea, vomiting, and constipation, together with more or less inflammatory fever. These symptoms, however, are common to most abdominal affections, with which phlegmon therefore may be at first readily confounded. Among these latter affections, in acute enteritis the pain is less intense, more deep seated, and less increased by superficial pressure, while in phlegmon the pain is more evidently superficial, and tolerant of the slightest pressure. The abdomen is not so generally and early distended as in enteritis, but on the contrary is sometimes flattened by the action of inflamed muscles. In enteritis the general symptoms are such as indicate a severe malady, the face is much pinched, and all the system altogether more collapsed than in phlegmon. As the disease advances its nature in phlegmon is soon indicated by the appearance of a circumscribed induration, followed by reddening of the skin, after which no difficulty can exist in forming a diagnosis.

When suppuration has ensued, phlegmon may be mistaken for other tumors, but in general, the history of the case, the rapidity of its development, incomplete febrile remission, &c., will easily distinguish it from mere chronic affections, as hydatid tumours, encephaloid and chronic abscess. In case of unusual difficulty, the use of the exploring needle will materially assist in coming to a just conclusion.

The treatment of abdominal phlegmon is simple In the first instance

warm fomentations may be sufficient to prevent further progress, but in general a few leeches will prove most useful, followed by warm or cold applications, according to the nature of the patient's sensation. When suppuration becomes manifest, no delay should occur in giving issue to the pus, which otherwise may, in exceptional cases, burst its way into the peritoneal cavity. The opening should be large, in order to prevent the formation of sinuses. The subsequent treatment is then reduced to the simplest surgical principles.—*Ib.*

Treatment of "Absces Froids" by Iodine Injections.—A memoir has been presented at one of the recent meetings of the Surgical Society of Paris, on the "Treatment of Large Abscesses by Iodine Injections." M. Bonnet, the author of the memoir in question, reports four successful cases: the proposal is therefore deserving of the attention of surgeons; nevertheless, the discussion which ensued would lead one to doubt whether the author had over-rated the merits of the operation as a general means of treatment. It seems that only one of the four cases was really an "abscès par congestion," that is an abscess produced by caries of the vertebral column; but still this case, if well authenticated, is extremely valuable.

M. Fleury(*Gazette Medicale.* Oct. 5) has tried this treatment in two cases, but without any favourable result in either. —*Ib.*

MIDWIFERY.

Quick Childbirth as connected with Criminal Courts of Law.—To the Editor of the Pro. Med. and Sur. Journal.

—Sir,—Those gentlemen who have been called upon to give evidence in courts of justice, on cases of suspected infanticide, and submitted to severe cross-examinations, will fully appreciate any fact, however trifling, which can strengthen their opinion upon a subject which has been involved in much doubt, as to the possibility of a female in good health and sound mind being delivered of a full grown child without her cognition; and having perused the interesting and valuable communication in your journal of the 8th of January, by Mr. King, of Bath, I think it a good opportunity to give the history of a case which has recently occurred in my own practice, being the only one I have met with during a series of twenty years experience; and I hope that the importance of the subject will be a sufficient apology for its introduction to your journal.

Having been engaged to attend a lady, aged 34, in her first labour, I was hastily summoned to her house early in the morning, but on arriving there I was informed that the child was born a few minutes previously to the messenger leaving her, and that the infant was dead.

On making inquiries, I found that my patient thinking that she had a desire to use the night-chair, attempted to make use of it, and there voided what she supposed to be the liquor amnii, and sat there some time afterwards, feeling much indisposed; but on getting into bed she saw, to her great astonishment, the child lying in the vessel quite dead. She declared most positively that she had experienced no pain, and was quite unconscious of the exact state of her position. I weighed the child and found it to be six pounds and three-quarters, and full grown, the mother having completed her full time of reckoning.

Now, as the lady and her husband had expressed great anxiety respecting the birth of the child, and every usual preparation had been made for its reception, there cannot be any reasonable doubt of her integrity in this matter, as there could be no possible object in concealing the birth. Had she been a single woman, I fear that a very different conclusion would have been drawn.

I have the honor to be, sir, your obedient servant,

J. G. Harrison, M. D.
M.R.C.S.E.

Piccadilly, Man., Jan. 21, 1851.

Rupture of the Uterus twice in the same Subject—the last fatal. By Dr. Hartt.—Dr. H. was sent for in May, 1846, to a female who had been in labour three days. She was exhausted, with a pulse of 108. On examination he found the shoulder presented; that there was a laceration of the neck of the uterus, through which the head, and the head only, of the child had passed. He

immediately seized the feet and delivered with little difficulty. He gave the patient an anodyne, and waited beside her four hours, expecting that she would die. At the end of that time, however, she seemed to be better, and he began to cherish some faint hopes of her recovery. She did recover; and about eighteen months afterwards she was delivered of a living child upon a raft in the river, without assistance of any kind.

On the 13th October, 1849, he received a summons to visit her again on a similar occasion. When he arrived she had been in labour four days. She was very weak; pulse 118 and feeble; breathing very hurried. The account given by the attendant was, that the hand presented, that her pains were severe, and that twenty-four hours after they began a snap was distinctly heard by her friends around her couch; that the hand receded, and from that moment the labour had been suspended. Suspecting the true state of the case, Dr. H. instantly examined, and found a large opening precisely in the seat of the former rupture, and passing on his hand he felt the child in the cavity of the abdomen. The patient was so far exhausted that he was unwilling to interfere. He described both to herself and to her friends her alarming position, and stated that, owing to the length of time which had elapsed since the accident occurred, he feared that no operation could prove successful. They all, however, expressed great anxiety that an effort should be made, and at their repeated and earnest solicitations he proceeded to turn and deliver her *via naturale*. The operation was performed with great gentleness, and particular care was taken to avoid unnecessary injury to the bowels. He remained with the patient several hours, administering anodynes and restoratives, but in vain. She gradually sank and died thirty-six hours after delivery. The interesting feature in the case of this patient was, her complete recovery from the first rupture, and the perfect union of the parts, a union sufficient to sustain the violence of the unassisted delivery of a large and vigorous child.—*New York Journal of Medicine, Nov.*, 1850.

Uterine Hæmorrhage: New Mode of Plugging.—M. Diday (*Gazette Médicale de Lyon*) employed the apparatus of M. Gariel in a very serious case of uterine hæmorrhage. The apparatus consists of a vulcanized india-rubber bag, ending in a long tube, which is introduced, and then inflated. M. Diday passed the bag as far into the vagina as possible, and having inflated it, confined the air by tying the tube. The bleeding stopped instantly.

Spontaneous Expulsion of a Large Urinary Calculus in a Female By M. Briault.—A woman, aged 50, for a long time affected with ovarian dropsy, complained to her physician of difficulty in making water, which he naturally referred to the presence of the hypogastric tumour. In consequence of the continuance of the complaint, M. Briault was led to make an examination of the parts. The catheter was introduced with difficulty, and caused pain, but no suspicion was roused of the existence of a calculus in the bladder. On examination per vaginam, a tumour was felt through its anterior wall, resembling, in some respects, the enlarged prostrate felt in the same situation in the male.

M. Briault saw her on the following day and repeated his examination, when the patient informed him she had passed the greater part of the night in acute pain, accompanied with expulsive efforts, like labor pains. The efforts ended in the expulsion of a large calculus. On again examining, M. Briault discovered the urethra in a state so distended, as easily to admit of his finger, and allow the examination of the vesical walls. The urine was bloody, and passed involuntarily, but these symptoms disappeared in a few days. The calculus weighed somewhat more than an ounce; it was two inches long, and nearly three inches in circumference. —*L'Union Medicale, September, 28th*, 1850.

Case of Birth after the Death of the Mother.—Dr. Schneider relates, that being summoned in haste to a woman in labour, he found her dead on his arrival. On placing the hand on the yet warm abdomen, he felt the uterus contracted and sunk in the pelvis. By an examination per vaginam, a foot was detected, and by rapidly completing the

delivery, he had the satisfaction of bringing into the world an apparently still-born child, which, however, soon revived.—*Casper's Wochenschrift.*

Treatment of Uterine Hæmorrhage during Labour, and after Parturition. —The placenta may adhere to any part of the inner surface of the uterus, to the fundus. body, or cervix, and hæmorrhage cannot take place to a dangerous extent during pregnancy, or labour, unless the connection of the placenta with the uterus has been destroyed.

It is from the great semilunar, valvular-like, venous openings in the lining membrane of the uterus, and of the arteries which are laid open by the separation of the placenta, that the blood alone flows in uterine hæmorrhage. All the different causes of flooding produce their effect, by mechanically separating the placenta from the part to which it is attached. The contractions of the uterus and the formation of coagula of blood in the exposed vessels by the separation of the placenta, are the principal means employed by nature for the suppression of all the varieties of uterine hæmorrhage. Before delivery, the contractile powers of the uterus cannot be effectually exerted in closing the vessels; and the hæmorrhage usually returns till the contents of the uterus are expelled or removed artificially. All the different means which are employed for checking the discharge in uterine hæmorrhage, either act by exciting the contractions of the uterus, or promoting the coagulation of the blood itself, within the exposed orifices of the vessels. Uterine hæmorrhage in the latter months o pregnancy, or during labour, is always accompanied by great danger; it does, or ought to excite alarm in all cases, whether it depends on presentation of the placenta, or its detachment from the upper part of the uterus. When flooding depends on the first of these causes, the practice universally adopted for the last two centuries, has been to deliver artificially, by turning, as soon as the os uteri is sufficiently dilatable to allow the hand to be introduced without the employment of great force. When the placenta does not present, the practice generally adopted since the time of Mauriceau, has been to rupture the membranes, and leave the child and placenta to be expelled by the natural contractions of the uterus.

When flooding takes place in the first stage of labour, the discharge usually ceases when the uterus contracts, and returns during the intervals of pains. Here the same practice of rupturing the membranes should immediately be had recourse to, but if the flooding should afterwards continue, and the pains become more and more feeble, delivery must be accomplished by the forceps, by crainotomy, or by turning, according to the peculiarities of the case, as described by Smellie. When a dangerous flooding takes place after the delivery of the child, and before the placenta has been expelled, strong pressure should immediately be made over the hypogastrium, to excite uterine contractions, and the placenta be removed. When hæmorrhage follows the natural expulsion of the placenta, or its removal from the uterus by art, there may be either a total want of uterine contraction, or the contractions may not be permanent, but be followed by relaxation, and the effusion of a large quantity of blood, which may either appear externally, or remain to become coagulated, and distends the uterus. By far the most important remedies, and those on which I place the chief reliance in such attacks, are constant and powerful pressure over the uterus, and the application of water to the external parts, and the exhibition of stimulants, particularly wine and brandy. The abdomen should be strongly compressed with the binder, and folded napkins placed under it, and, in addition, the hands of an assistant should be applied over the fundus of the uterus. I have seldom found it necessary to introduce a plug of any kind into the vagina in these cases; but where there has been a draining of blood from the uterus, after the practice now described has been adopted, a large piece of sponge has been passed up, which has promoted the coagulation of the blood, and the contractions of the uterus. Perhaps on the whole, greater benefit has resulted from introducing smooth pieces of ice into the vagina. I am now convinced, from many cases, that the practice so often employed of passing the hand into the uterus, and pressing its inner surface with closed fist round and round, to excite it to contract,

or to compress the bleeding vessels like a tourniquet, is not only ineffectual for the purpose in the worst cases of this kind of flooding, but that it is attended with mischievous consequences after the flooding has been suppressed. * * *

"The best method of preventing retention of the placenta, is to apply the binder immediately after the birth of the child, to make pressure with the hand over the fundus uteri at short intervals, and slight traction upon the cord downward and backward in the direction of the hollow of the sacrum. By these means, the upper part of the uterus usually goes on contracting, till the placenta is detached, and pressed down through the os uteri into the vagina. In all cases, whatever the cause of the retention may be, if the placenta at the end of an hour is not detached from the uterus and expelled, it should be withdrawn artificially. The difficulty of removing the whole or portions of the placenta adhering with more than natural firmness to the uterus, or retained by contraction of the cervix, is only increased by delaying to interfere after an hour has elapsed from the delivery of the child. — *London Institute.— Quoted from Lee's Clinical Midwifery.*

MATERIA MEDICA.

On Anæsthetic Agents. By M. Aran. —The next question which M. Aran seeks to solve is the "effect of the employment of anæsthetic agents upon the health of the mother and infant." On this point he observes :—

"As regards the influence of anæsthetic agents on the mother and infant, the early results experienced by MM. Simpson and Dubois are quite confirmed. Ætherization of the mother has no perceptible effect on the child, or if it does influence it, it is solely by a slight acceleration of pulse. Dr. Simpson has given the results of 150 labours in which chloroform was used, of these one infant only was born dead, and that was putrid and a second, the subject of cyanosis, died a few days after birth. Drs. Duncan and Norris also declare that when infants have been still-born, the chloroform had nothing to do with it. And again Dr. Murphy states, that in 540 labours, in which æther or chloroform was used, there was not one still-birth

In reference to the influence of anæsthetics on the mother, it may be affirmed freely, that there is no ground for apprehension. Of 1519 females thus treated by Dr. Simpson, no accident happened that could be rationally attributed to these agents. Dr. Murphy did not meet with a single instance of death in 540 natural labours under chloroform; not one in 37 forceps cases; only one in 27 cases of turning; and 2 only in 20 cases of perforation. Drs. Duncan and Norris have contrasted the results of 93 labours under chloroform with 50 conducted in the ordinary manner. These results are entirely in favour of anæsthesia. They state that the females delivered under chloroform are exempt from the lassitude of ordinary labours; they are cheerful when the effect has passed off, and they frequently fall into a natural sleep. "Not only," says Dr. Simpson, "do these women escape pain but the knowledge of the fact has a favourable influence on the convalescence, which is shorter, and more free from complications than in the generality of cases." It does not appear, moreover, that there is a great frequency of other accidents which may endanger the life of the woman. Three of these have been chiefly feared, namely, rupture of the perineum, uterine hæmorrhages, and convulsions, but experience has proved the futility of such apprehensions. It appears, therefore, on the whole, that the maternal economy so far from being injured by the use of anæsthetics, is, on the contrary, benefitted by them, both in the act of accouchement and in its consequences."

"We now arrive on a question of paramount importance. What are the indications and counter-indications for the employment of anæsthesia in midwifery? Is the comparative harmlessness of anæsthetic agents a sufficient reason for their use in midwifery? Dr. Simpson, and with him many of the physicians of the north, decide in the affirmative, considering that the pains which occur in the last stage of labour should be regarded in the same light as those which attend severe operations; so regarding them, it is impossible to refuse to the suffering woman the solace which is accorded to the subject of the surgeon's knife. Of the religious objections we need scarcely speak, they are

less urged here than in England. But there are other objections, based upon physiological doctrines, which have considerable weight with many practitioners; among these M. Bouisson considers the pains of the lying-in woman as destined to insure her safety, since they inform the attendant of the stage and actual progress of the labour. But the same may be said of pain in surgical operations, and on this ground we ought equally to object to anæsthesia in surgery. In expressing our own opinions, we should say that in a natural labour, with pains of average intensity, anæsthetic agents may, with good reason, be dispensed with. But the case is different in præternatural labour, in which manipulations are necessary, which are in themselves the occasion of additional suffering. Whenever, for some reason, the pains are unusually severe, as from a faulty presentation, rigidity of the soft parts, narrowness of the brim, &c., all hesitation should vanish, and we should avail ourselves of anæsthetic agents, as powerful auxiliaries to the ordinary measures."

"In obstetrical operations there is evidently as much reason to defend the patient from the effects of nervous shock as in surgery; wherefore the employment of anæsthesia in such cases has not been discountenanced, even by those who are opposed to it in ordinary labours. Dr. Montgomery has recognised the utility of the practice in instrumental delivery, in turning, and in artificial extractions of the placenta.—Certain accoucheurs have expressed doubts as to the propriety of inducing anæsthesia in forceps cases, and in cases requiring perforation, from the fact that some degree of sensibility is required, as a warning against injuring of the soft parts. But this objection is more apparent than real. When the rules for the application of the forceps are strictly observed an anæsthesia does not increase the risk. It may be mentioned that in the case of obstetrical operations a greater degree of insensibility is required than in ordinary labor."

M. Aran here recapitulates the different methods for exhibiting chloroform which have been recommended in obstetrical practice, pointing out principally the rules laid down by Dr. Simpson and Mr. Snow; after which he proceeds to report "on the *medical use of anæsthetic* agents:"—"It is not in surgical operations alone that pain is experienced; it is the sad appendage of a great number of diseases, and in some forms the essential morbid element. It is against pain that the power of anæsthetic agents has been chiefly invoked in medicine; but they have also been used to remove spasms and other abnormal muscular actions. In tetanus the spasms have been undoubtedly relieved, but they have unfortunately recurred after a brief interval, and in some cases they have been actually increased by the inhalation.

"This uncertainty in the action of anæsthesia in medical practice, together with the deaths which have followed in certain cases, prevents my entertaining a sanguine view of the therapeutical employment of these agents. Without denying the services which they have rendered, they are too powerful to be brought into general use, more especially as oftentimes the same effects may be produced with less risk by their local application. This mode of using them is, however, still in its infancy; and we must wait for further development before we venture upon any decided opinion respecting its merits."—*Prov. Med. & Sur. Jour.*

Use of Anæsthetic Agents in Ancient China.—Stanislas Julian has found, in examining the Chinese books in the National Library of Paris, the proof that the Chinese have been long acquainted with the use of anæsthetic agents during surgical operations. The extract which he gives is from a book published about the commencement of the sixteenth century, in fifty vols. quarto, and entitled "Cow-Kin-i-tong," "General Account of Ancient and Modern Medicine," and refers to the practice of a celebrated physician, Ho-a-tho, who flourished between the years 220 and 230 of our era. It states, when about to perform certain painful operations, "he gave the patient a preparation of hemp" (hachich), and that at the end of a few moments "he became as insensible as if he had been drunk or deprived of life." After a certain number of days the patient was cured, without having experienced the slightest pain during the operation.—In a subsequent notice he also adds, that the same physician used the hydropathic

system as a cure for certain diseases, among others chronic rheumatism.—*Edin. Philosophical Journal.*

On Iodognosis—M. Dorvault has published a series of researches on the chemical, therapeutical, and medical properties of iodine. To these, as embracing the entire knowledge of all the properties of that substance, he has given the name of iodognosis, *iodognosie.*

We here submit an abstract of the medical portion of these researches, from the *Gazette Medicale de Paris.*

Iodine, as a therapeutic agent, according to M. Dorvault, is unimportant; it is to its combination as *iodids* that its medical value is due. Even when introduced alone into the system its therapeutic effects are to be attributed to its combination with the alkalies which exist in the fluids of the body. Under either circumstances the terms *iodic medication* express the same fact.—Iodide of potassium is taken by M. Dorvault as the type of iodides.

Physiological Action of Iodides.—Iodides belong to that class of therapeutic agents to which M. Dorvault gives the name of *chemico-catalytic*, and form its most striking representative. This proposition is founded on the following facts:—If the animal fluids (blood, lymph, semen, milk), or their proteic elements (albumen, fibrin, casein), be subjected to the action of a solution of iodide potassium, it will be seen to prevent their coagulation and dissolve them. In producing this effect the salt remains unaltered; it acts therefore, by virtue of what chemists have called the *catalytic* force. The same may be shown to have obtained when employed in certain pathological cases. The salt may be detected unaltered in the blood or urine, or other secretions.

These facts have been observed by other investigators, and all have found practically that iodide of potassium promotes secretions, increases the functions of the mucous glands of the alimentary canal, and of the liver, kidneys, skin, pancreas, parotid, &c.

Iodide of potassium is rapidly eliminated from the animal fluids. Dr Scharlan (of Stettin) found that a patient to whom he gave fifty-three grammes daily. eliminated fifty one grains in his urine. The five grains lost were accounted for by the elimination of this salt by the saliva, sweat, and tears. Dr. Kramer satisfied himself, from his experiments, that six days sufficed from the complete elimination of this salt after its exhibition during fifty days. The researches of Dr. Marchal, at Val de Grace also prove the rapid passage of iodide of potassium by the urine.

Iodine introduced into the system has been separated by the action of alkalies on the blood.

Special Action of Iodides.—The accidental or consecutive action of iodides has often been mistaken for their primary or efficient action. Some physiologists have considered iodine as a stimulant, others as a contra-stimulant. M. Dorvault observes that neither view expresses the exact truth. He admits a certain degree of general constitutional excitement under its employment; also that in severe pains of the bones, and other tumours, the action of iodine is sedative by allaying pain. But in both these cases the stimulation and the sedative action are the consequence, not the cause, of the beneficial therapeutic agency of the remedy.

A third opinion, that iodine is alterative, M. Dorvault regards as nearer the true explanation, but as insufficient in fact, as the medicinal influence of the iodines is often seen after the first dose, therein differing from alteratives. M. Dorvault admits, however, the alterative action of some substance in which iodine exists in minute quantities,—*e.g.*, sponge, cod-liver oil, &c.

M. Dorvault also considers the purely chemical theory of the action of iodine as incorrect; his opinion being, that the medicinal virtue of the iodides consists in their power of dissolving or further liquefying the *humours* of animal bodies, of separating their constituent or proteic elements, and disposing these to the formation of new products, such as coagula, false membranes, and pathological concretions: that the iodine and the potassium united, both concur in the production of this result, by a special and peculiar chemico-physiological power which iodides possess of liquefying the fibrine of the blood without destroying the globules; while potash, ammonia, and other substances, dissolve the blood in all its parts.

Therapeutic Action of Iodine. The pathological states in which it is em-

ployed.—Goitre, scrofula, syphilis, skin diseases, white swelling, caries of the vertebræ, tabes mesenterica, rickets, phthisis, leucorrhœa, amenorrhœa and chlorosis, cancer, cachexies, dropsy, poisoning tumors, rheumatism, various chronic diseases, hypertrophy. These are the forms of disease in which, M. Dorvault observes, the administration of iodine is indicated.

[M. Dorvault's profession is chemistry, and his remarks on the employment of iodides in this catalogue of maladies are therefore not original, but borrowed from other writers. With these our readers are for the most part familiar, and we shall not, therefore, occupy space by transferring them to our pages. The chemico-physiological action of iodine which we have given above, we regard as possessing very considerable interest.]—*Gaz. Med.*

MEDICAL JURISPRUDENCE.

Poisoning with Cantharides.—The following appearances were observed by M. Arreat in the body of a man exhumed for the purpose of examination (by order of the *Cour d'Assizes de Vau luse*), on suspicion that the deceased had died from poison :—

The cavity of the mouth was covered almost entirely with thick white mucous, symptomatic of violent inflammation of the digestive tube. When removed with the handle of a scalpel, there appeared two considerable apthous ulcerations on the back of the tongue on the inner surface of the lower lip. The tonsils were both deeply ulcerated,—indeed, almost destroyed, and covered with copious thick yellow pus. The œsophagus presented unequivocal traces of severe inflammation throughout its whole course. The small intestines presented brown and reddish discoloration, indicative of inflammation. The liver exhibited a yellow discoloration on its duodenal surface. The bladder was of a brownish colour ; this organ was indurated, contracted, and greatly thickened ; its internal surface was completely covered with black fungoid patches, consisting of extravasations of blood in its altered structure. The cavities of the kidneys presented similar changes.

The small intestines contained no trace of the powder of cantharides, but particles of these were found in considerable numbers on various parts of the surface of the mucous membrane of the stomach, which exhibited abundant traces of inflammatory action, and in some parts was in a gangrenous state.

The rectum appeared as if an immense blister covered its muscular coat, filled with pus. Such an extent of disorganization M. Arreat had never before witnessed ; and it was a source of regret that it was impossible so to preserve it that it might have been exhibited to others.

The fæces contained in the intestines were submitted to the action of alcohol, and a very large number of the particles of powdered flies were found therein.

The poison in this case had been administered certainly twelve or fifteen days (perhaps more than a month) before death. It appeared that a dose of at least two grammes (—30 grs. Eng.) had been administered the day before death occurred.

The symptoms appear to have been, obstinate costiveness, fearful colics, and a sensation of burning in the throat and rectum.

It was proved that the cantharides had been administered by the widow of the deceased.—*Jour. de Chi. Med,* Nov. 1850.

MISCELLANEOUS.

Singular Charge against a Surgeon.—For several days considerable excitement has prevailed in Blackburn, by a report that Mr. Rogerson, surgeon, had branded a boy's forhead with a large letter B. which had been written on by caustic. For some time past, Mr. Rogerson had been considerably annoyed by boys continually ringing his bell, and running away. On Sunday week, hearing a forcible pull at the bell, he immediately ran out and caught a boy named Woods, and shut him up in the surgery for a short time ; he then got some caustic, and held the boy whilst he rubbed on his forehead the letter B. The youth stated that previous to the act being committed, Mr. Rogerson asked what school he had been at. On being told at the Independants, the defendant said " Oh, you are one of that sort, are you ? then I'll make an example of you." At the police office on

Monday, Mr. Rogerson was charged with the above offence. It was stated that, from the opinion of several medical men, the mark would never be erased from the lad's forehead during his life. Mr. Rogerson contradicted this assertion, and stated that all the appearance would be entirely obliterated in about 12 months. Dr. Martland was of the same opinion. The defendant denied the boy's statement with respect to what school he belonged. Mr. Eccles said that whether the mark would be then obliterated or not made no difference; he should be under the painful necessity of ordering Mr. Rogerson to enter into recognizances to appear at the Lancashire Assizes. Mr. Rogerson, seeing the serious position in which he was placed, applied for an adjournment until Wednesday, in order to consult a legal adviser, which was granted, the defendant entering into his own recognizances to appear on that day.

*** We may remark, in order to prevent a repetition of this serious joke, that the act of disfiguring a person is stamped as *felony* by the 1st Victoria, chapter 85, section 5. It is there enacted that whosoever shall cast, throw, or *otherwise apply* to any person *any corrosive fluid* or other destructive matter, *with intent*, in any of the cases aforesaid, to burn, maim, *disfigure*, or disable any person, and whereby any person shall be burnt, *disfigured*, or disabled, shall be guilty of felony. The punishment attached to this offence is transportation for life or for not less than fifteen years—or imprisonment for any term not exceeding three years.—*Lon. Gaz.*

Cases of Abstinence.—Two remarkable cases of abstinence from food are reported in the American Journal of Medical Sciences, by Dr. Taylor, of Carrollton, Ohio. Both occurred in insane subjects. One passed ten days at one time and fourteen at another, without food or drink, and died at the end of one hundred days of almost entire abstinence. The other lived twelve days at first without eating or drinking. He then drank small quantities of water, but took no food for thirty-nine successive days, and died last September, after passing "one year eight months and sixteen days in an almost perfect state of starvation, and fifty-one days without food of any kind."—*Bos. Med. and Sur. Jour.*

British American Journal.

MONTREAL, APRIL 1, 1851.

Dr. Laterriere's Bill.—We have received, indirectly, from Dr. Von Iffland, the following printed circular, and its reply. We glean from the present and the past, that two dodges are now to be placed before the Legislature. The one, the placing of the Medical Schools on an equality with the Universities of the Province, by enabling them to grant *ad practicandum* diplomas as is sought for by the Montreal School of Medicine; or the other, the levelling of the Universities to the grade of the Schools of Medicine, by compelling the holders of their degrees to submit to an examination before the Provincial Board, before obtaining licenses to practice—the position which the *mere students* of the Schools of Medicine now occupy. The absurdities of these positions we feel, at present, no inclination to expose; they will, we feel satisfied, be abundantly apparent; and we recommend Dr. Von Iffland's answer to consideration, assured that it will tell an uninterested tale, of sufficient strength for our purpose at present:

"Quebec, 22e Janv., 1851.

"*Monsieur.*—De la'vis de plusieurs confrères, dans Québec, jai a vous prier de me faire connaître si vous concourez dans la mesure du Docteur Laterrière, en Chambre, et qui va à mettre les Ecoles de Médicine, dans cette Province, sur *un pied d'egalite*, et sous le contrôle du College Médical de la Province."

"Le renvoi de la présente, ouverte

avec un *oui* ou un *non*, et votre signature en bas, autorisera a agir en votre nom, et obligera

Celui qui à l'honneur de se souscrire,
Monsieur,
Votre très-humble et obt. serviteur,
Jos. PAINCHAUD,
Praticien Senior.

Mr. le Docteur Von Iffland."

TO A MEDICAL FRIEND.

I lately received a circular, signed Jos. Painchaud, Praticien Senior, touching my concurrence with Dr. Laterriere's Bill, "qui va à mettre les Ecoles de Medicine dans cette Province, sur *un pied d'egalite* &c."

I have not seen Dr. Laterriere's Bill* —and independently of the object of placing all the Schools of Medicine on an equality, it may contain obnoxious enactments—with the nature of which, I am totally uninformed. The Bill ought certainly to have accompanied this circular. It is no compliment to me, nor to the intelligence of the country practitioners in general, to expect, on so important a question as the one involved in Dr. L's Bill, a mere passive action—a *oui* or a *non*.

I have no intention, nor have I any inclination to depreciate the attainments of the Lecturers in the Schools of Medicine of Quebec and Montreal; it is enough to say, that I estimate them at their just value. But I should seriously regret, and would have much to answer for, if by my individual sanction, I had contributed to the Legislative enactment of a measure which I look upon as productive of serious injury to, if not destructive of, the best interests of the Profession.

I have already expressed my views upon the subject, and particularly at a time when the same powers and privileges as those enjoyed by the University of M'Gill College were sought for from the Legislature by the School of Medicine of Montreal, (then numbering Lecturers highly distinguished for practical and literary attainments); and far from seeing reasons to change my sentiments, that active competition amongst Medical Schools, would have a tendency to lower the standard of professional requirements, they have been greatly strengthened by the efforts now making in the United States, to check a *free trade system*, which has produced throughout that great confederation, a most ruinous influence on the Profession, and I may add, on suffering humanity. I perfectly agree with Dr. Taylor, who some time past, addressed a Medical Society on the existing condition of medical instruction in the United States:

"Where the reputation of the school and the emoluments of the professors are made to depend, not on the quality of the instruction, but directly on the number of the matriculants, it would be asking too much of human nature to expect the dignity and usefulness of the profession to be advanced, or even *upheld* in the face of a vigorous and constantly increasing competition."

I shall conclude these few observations, by merely adding, that until the *doyen* can offer me evidence that the teachers of the Medical Schools of Canada East, are men of superior virtues and higher moral attributes than those in the United States, and that it is purely and truly the general good, and not *private ends*, which influence the present active movement for an extension of power and privileges, *et sur un pied d'egalite*, with those long since granted by imperial statute to the University of M'Gill College,—(the various medical departments of which, have been confided to gentlemen possessing the combination of those qualities, which not only constitute eminent teachers, but which also raise the character and dignity of the profession,)—I shall steadfastly adhere to my former humble sentiments.

Yours,
A. VON IFFLAND.

Beauport, Feb. 1, 1851.

Meteor.—On Sunday evening, March 23, about half-past eight o'clock, when on a professional visit to Lachine, we witnessed a meteor of more than ordinary splendor. Having passed the Toll-gate, the whole atmosphere, previously dark and murky, yet perfectly calm, was suddenly lit up, and, on looking for the cause, we observed a splendid globe of fire to the north-eastward

* Dr. Laterrier's Bill will be found on page 182 of this vol.—Ed.

of the zenith, moving with measured pace towards the west, leaving a trail of about two degrees in length ; and after a course tracking about one-fourth of the heavens, it suddenly and noiselessly exploded, resolving itself into three or four smaller globes, each of which, after a short distance, gradually became extinguished. The parent meteor appeared to be about half the size of the moon at her full, and was estimated, when first noticed, to be about a couple of miles in height, moving thence diagonally towards the earth in the direction, apparently, of the mountain; and, leading to the impression that, if a meteorolite, it must have struck the earth somewhere in that neighbourhood. The light emitted by the meteor was of a pale blueish white color.

The same meteor, and at the same period of time, was observed in Quebec, and presented to the observer there, the same optical deception that it appears to have caused to ourselves here,—he believing that it must have struck that city, some where in the neighbourhood of Durham Place.—From the fact of its having been witnessed in this city and Quebec at the same moment of time, and considering the distance between the two cities—180 miles—its course in the atmosphere must have been at a very considerable altitude. We have not learned whether it was observed at Three Rivers, which is equi-distant from both cities; but if so, we cannot question that its appearance must have been brilliant in the extreme. In all probability, it was a meteorolite, and these observations may possibly attract attention to the locality of its fa

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Compound Cherry Pectoral.—This preparation, from the Laboratory of Mr. Ayers, Chemist at Lowell, is being most egregiously *quacked* in this Province, and we call the attention of physicians generally, to the fact. A surreptitious use has been made of the name of this journal, to favour its introduction to indiscriminate employment, against which we protest, and of which we wish the profession in the Province, at least, to be informed. We refer to the *Toronto Patriot*, in which an advertisement appears, making most unqualified use of the name of Dr. Mott of New York, and of that of this journal.

Closure of the Sixth Volume.—This number closes the sixth volume of this journal, and did we conceive that its mission had been fully accomplished, we might here rest our labours, and in swan-fashion, like the *St. Louis Probe*, "sing and die." When this journal commenced its existence, just six years ago, the profession of this Province was in a most chaotic condition. A Medical Law, as antiquated almost as those of "the Medes and Persians," and seeming to possess their immutability, controuled it. Mainly by the instrumentality of this journal, these matters were righted, and the profession is now regulated by a Bill which places the standard of medical education the highest on this continent—the position which we wish to see it occupy, whatsoever may be the proceedings of the American Medical Association in this respect, as regards that of the United States.

This journal must be instrumental in obtaining a similar favour from the Legislature for the western portion of the Province; in the mean while this desirable result has not been realized, but we apprehend that its consummation is not distant. One beneficial object, however, has been secured for the profession of the Upper Province,—the securing of their rights at Coroners' Inquests, effected by

the Coroners' Bill passed at the last Session of the Legislature, which we hope is but the commencement of further concessions to their just demands. We will not think of *dying* until all these desirable results be obtained, but in the interim recommend to the serious consideration of many, *very many*, of our subscribers the following singularly apposite dying strains of the *St. Louis Probe* :—

"*The St. Louis Probe.*—The present number closes the first volume, and ends the publication of, the *Probe*. During a year's experience in journalism, we have been convinced that neither fame nor funds can be acquired by conducting a medical monthly, and that many members of the medical profession are miserably poor in pocket, and more are deficient in moral principle, however well they may be imbued with the principles of their profession. We are inclined to believe that a large number, who have received our journal without paying for it, have devoted themselves to the study of scorbutus, with some success; for we must say they have treated us most scurvily, and not a few have shown a thorough acquaintance—not with abstract principles—but with the principles of abstraction, which would entitle them to the consideration of the judiciary. For the kind favors, and warm support we have received, however, from the better portion of our brethren, we return our hearty thanks, and thus take leave of them. Our hearts are so very full, and our pockets so very empty, that we are unable to say more."

CORRESPONDENCE.

MEDICAL ACCOUNTS AND COURTS OF JUSTICE.

To the Editor of the British American Medical Journal.

SIR,—I have perused with much satisfaction, in your last number, a report of a trial, in the course of which it was ruled by Lord Tenterden, one of the highest judicial authorities in England, that a medical practitioner's books afford sufficient evidence of the accuracy of his accounts, and that he is under no necessity of calling witnesses to prove his visits, seeing that it is in most cases quite impossible for him to do so. I am tempted—through the medium of your valuable paper—to lay before the profession in Canada, another decision involving a point of no small importance to them individually and collectively.

In a case lately tried at a Division Court in York County, the plaintiff, a medical practitioner, sued the defendant for attendance upon a third party, who was unable to pay the account. The defendant was a relative of the patient; and as the symptoms were very urgent, went for the medical man, and requested him to renew his visits as often as might be necessary. After the lapse of a year, the plaintiff brought his action against defendant, as the person by whom he was employed. It was ruled by the presiding Judge, that a man incurs no liability by going for a doctor; and the plaintiff was nonsuited.

Now, Sir, without any disrespect to the learned Judge, this decision, if viewed in all its bearings and consequences, will appear to be of questionable equity. Let us suppose that instead of going to a doctor, the defendant had gone to a shoemaker, and represented that Mr. So-and-So, a poor relative of his, was in want of a pair of shoes, and requested him to go and take his measure and supply him with the article. It seems as clear as noon-day that he would be liable for the goods supplied, in case of non-payment by the party receiving them; and if a tradesman could recover for his goods, why should not a medical man, in a parallel case, recover for his medicines and attendance ?

It is obvious that this decision, if generally acted upon, would subject the medical profession to an untold amount of injustice. A man may go or send for a doctor to attend his father, his hired man or his neighbour, no matter how long the journey may be or how serious the case, knowing perhaps that the sick or injured person has no means of payment, and caring very little whether the doctor is paid or not. It often happens that an old man has assigned his property to his son ; and yet by this decision, the son may have the father treated for a protracted disease or a formidable accident, without incurring any immediate or contingent liability. When pressed for payment he has merely to say, that in employing the doctor he acted as the agent of another. Such was the defendant's plea in the case under consideration. As it is possible that your position may enable you to give a sound "medico legal" opinion on this point, I

have ventured to direct your attention to it, as a matter of general importance to the profession.

I remain, Sir,
Your obdt. servt.,
A SUBSCRIBER.

Thornhill, *March* 2, 1851.

OBITUARY.

At North Williamsburg, on the 12th instant, Dr. J. Corbey, in the 74th year of his age.

The career of the deceased has been so eventful that a slight sketch of it cannot fail to be interesting.

In 1800 he entered the Austrian service as a Surgeon; served six years as such in the campaigns of Moravia and Italy.

In 1806 he left that service, went to Germany, entered the French service and was engaged as full Surgeon in a Nassau regiment; went with it in the campaigns of Prussia and the Swedish Islands in the Baltic; returned to Germany, and thence proceeded to France, and then went to Spain.

In 1808 attended in the Peninsular campaigns, in the French service—4 years, till 1812.

In 1812 left the French service of his own accord, and married in Madrid.

By the proclamation of Lord Wellington, he entered, at Carthagena, the English service in 1812. He went to Cadiz, and was engaged as Surgeon in the Wadfield[x] Regiment, there stationed; embarked in Cadiz for Canada with that regiment, and arrived here in the begining of 1813; served two years in the campaigns of Canada, and was made, during the war, twice prisoner of war by the Americans.

In 1816, left Canada for England with the Regiment, and in England was put on half-pay; being on half-pay he left for France, and spent some time in Germany; returned, via Holland, to England again, and proceeded thence to Canada, where he arrived in 1817, at Montreal. Since 1847 he has made a living by private practice, and has resided for about 24 years in the neighbourhood of Williamsburg, County of Dundas. [x] not Wadfield, but de Watteville.

METEOROLOGICAL REGISTER at MONTREAL, for the Month of FEB. 1851.

DATE.	THERMOMETER.				BAROMETER.				WIND.			WEATHER.		
	7 A. M.	3 P. M	10 P M.	Mean.	7 A.M	3 P.M	10 PM	Mean	7 A. M.	3 P. M.	10 P. M.	7 A.M.	3 P.M.	10 P.M.
1	— 8	+12	+ 5	+ 2.-	30.70	30.56	30.34	30.53	S S W	S	S	Fair	Fair	Fair
2	+10	" 33	" 17	" 21.5	30.18	30.07	29.96	30.07	S	W S W	W by S	Snow	Fair	O'rcs't
3	" 29	" 34	" 30	" 31.5	29.93	29.88	29.77	29.86	S S W	S S W	S S W	O'rcs't	Clo'dy	O'rcs't
4	" 28	" 36	" 31	" 32.-	29.67	29.36	29.27	29.43	S	S	W	Fair	Fair	Clo'dy
5	" 22	" 29	+ 8	" 30.5	29.26	29.33	29.50	29.36	N W	N W	N W	Clo'dy	Fair	Fair
6	— 12	" 1	— 6	— 5.5	29.77	29.84	30.01	29.87	N N W	N N W	N N W	Fair	Fair	Fair
7	— 9	" 6	— 4	" 1.5	30.05	29.96	30.10	30.01	W	S W	S W	Fair	Fair	Fair
8	— 21	— 5	— 10	" 13.-	30.51	30.52	30.42	30.48	S W	S	S	Fair	Fair	O'rcs't
9	— 5	+ 6	+ 8	" 0.5	29.88	29.82	29.93	29.88	S	N	N	Snow	Snow	Clo'dy
10	+11	" 21	" 22	" 16.-	29.85	29.51	29.36	29.57	N	N N E	N by E	Sleet	Sleet	Snow
11	" 19	" 21	" 8	" 20.-	29.76	29.92	30.20	29.96	N N E	N byW	W N W	Snow	Fair	Clo'dy
12	— 8	" 16	" 6	" 4.-	30.45	30.50	30.55	30.50	N N E	N N E	S W	Fair	Fair	Fair
13	+ 9	" 33	" 29	" 21.-	30.53	30.42	30.31	30.42	S	S	S W	Fair	Fair	Fair
14	" 32	" 38	" 36	" 35.-	30.15	29.93	29.89	29.99	S	S	S	O'rcs't	Rain	Rain
15	" 38	" 44	" 40	" 41.-	29.45	29.13	29.27	29.28	S by E	S S E	S	Clo'dy	Rain	Clo'dy
16	" 12	" 21	" 13	" 16.-	29.68	29.85	30.04	29.86	W N W	W N W	N W	Fair	Fair	Fair
17	" 9	" 26	" 21	" 14.5	30.32	30.27	30.16	30.25	N	W	W	O'rc'st	Fair	Fair
18	" 27	" 30	" 19	" 28.5	30.04	30.24	30.41	30.23	S S W	N W	N W	Snow	Fair	Fair
19	" 5	" 31	" 26	" 18.-	30.50	30.45	30.28	30.41	N W	N W	S	Fair	Fair	Fair
20	" 29	" 39	" 32	" 34.-	30.05	29.98	30.06	30.03	S	S	S S E	Snow	Sleet	O'rcs't
21	" 29	" 27	" 31	" 28.-	30.06	29.96	29.80	29.94	S S E	S S E	S S E	O'rcs't	Rain	Rain
22	" 30	" 28	" 24	" 29.-	29.72	29.69	29.77	29.73	S	S	S	Snow	Snow	Clo'dy
23	" 24	" 33	" 26	" 28.5	29.90	29.94	29.83	29.89	N W	N W	N W	Clo'dy	Hazy	Fair
24	" 32	" 36	" 37	" 34.-	29.68	29.40	29.50	29.49	N W	S	S	O'rcs't	Rain	Hazy
25	" 25	" 34	" 25	" 29.5	29.87	30.00	30.08	29.98	S S E	N W	N byW	Fair	Fair	Fair
26	" 18	" 28	" 21	" 23.-	30.20	30.12	30.01	30.11	N W	N W	N W	Fair	Fair	Fair
27	" 27	" 37	" 35	" 32.-	29.81	29.64	29.56	29.67	S S E	S S E	S S E	Rain	Rain	O'rc'st
28	" 24	" 33	" 18	" 28.5	29.63	29.55	29.62	29.62	N	N	N W	Snow	Snow	Clo'dy
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

THERM { Maximum, +44° on the 15th, at 3 P. M. / Minimum, —21° " 8th, at 7 A. M. / Mean of the Month, +20.5°

BAROM. { Maximum, 30.70 in. on the 1st, at 7 A.M. / Minimum, 29.13 " " 15th, at 3 P.M. / Mean of the Month, 29.944 inches.

MONTHLY METEOROLOGICAL REGISTER, AT H. M. MAGNETICAL OBSERVATORY, TORONTO, C. W.—FEBRUARY, 1851.

Latitude 43°. 39'.4 N. Longitude, 79°. 21'.5 W. Elevation above Lake Ontario. 108 feet.—For the British American Medical and Physical Journal.

Day.	Barometer at Temp. of 32°				Temperature of the Air.				Tension of Vapour.				Humidity of the Air.				Wind.			Ins. of Rain.	Weather.
	6 A. M.	2 P. M.	10 P.M.	MEAN.	6 A. M.	2 P. M.	10 P.M.	MEAN.	6 A. M.	2 P. M.	10 P.M	MEAN.	6 A. M.	2 P. M.	10 P.M.	MEAN.	6 A. M.	2 P. M.	10 P. M.		
1	30.340	30.123	30.013	30.067	17.0	25.2	25.4	24.6	0.073	0.102	0.134	0.108	.74	75	95	78	S W	S S E	S W	—	Overcast; snow from 10 p.m.
2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	SW bW	SW bW	SW b W	—	Overcast; light clouds and haze.
3	29.790	29,731	29,632	29.681	28.9	31.6	28.1	29.4	.142	.142	.135	.140	.89	80	87	86	W by S	S W b S	SW by S	—	Dens'ly or'cst; very thick haze.
4	29.410	29.210	29.232	29.270	26.6	34.4	33.4	31.8	.139	.146	.164	.153	.96	73	86	85	SW b S	S W b S	W S W	—	Cld'd a.m; few clear spaces pm.
5	29.288	29.274	29.334	29.347	31.6	28.7	21.2	25.4	.154	.127	.108	.121	.87	80	92	84	W N W	N N W	N N W	—	Or'cst; snow from 4 to 10 p.m.
6	29.644	29.796	29.903	29.817	7.2	12.4	11.0	10.7	.046	.063	.060	.056	.69	79	78	73	NW b W	NW b N	W	—	Deth'd clouds; snow during night
7	29.859	29.845	29.981	29.922	15.4	19.3	9.0	12.7	.081	.070	.049	.061	.88	65	70	72	N	N W	N N W	—	Snow 10 am; cld'ed 6 pm; clear.
8	30.065	29.933	29.653	29.798	3.6	8.0	4.0	12.0	.051	.062	.048	.083	.90	93	85	92	N by E	E N E	N E b N	—	Stormy day; snw'ng from 10 a m.
9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	N by W	E N E	E N E	.305	Rain and sleet from 10 p.m
10	29,360	29.193	29,388	29.352	31.2	31.2	24.7	27.7	.165	.165	.115	.125	.95	95	84	91	N E	N	N W	.505	Rain and sleet; freezing at night.
11	29.724	29.901	30,100	29.982	17.4	18.2	12.6	14.9	.092	.085	.066	.076	.92	82	79	83	NW bN	NW b N	N N W	—	Cld'd; snow from noon to 4 pm.
12	30.255	30.298	30.287	30.285	14.2	27.3	23.2	24.7	.076	.121	.122	.116	.86	80	78	84	Calm	S	S E	—	Day cld'd; clearing up at night.
13	30.233	30.093	29.931	30.049	23.8	34.3	35.7	33.1	.124	.157	.179	.162	.93	78	86	85	Calm.	E	S E	—	Clouded all day; hazy.
14	29.823	29.742	29.516	29.650	36.0	38.3	37.3	37.9	.200	.221	.218	.220	.95	96	99	97	S E	S b E	N E b E	.100	Fog and drizzling rain from 1 pm
15	29.121	29.011	29.474	29.399	40.4	50.2	30.6	35.5	.244	.213	.158	.183	.98	60	93	85	E N E	S W	W	—	Or'cst and foggy am; high wind.
16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	W by N	SW b W	SW b W	—	Light haze; snow falling pm.
17	30.149	30.054	29.854	29.985	21.6	31.4	33.6	29.9	.105	.112	.141	.126	.88	64	73	75	SW bW	S by W	S S W	—	Clear am; cloudy from 6 pm.
18	30.012	30.264	30.298	30.241	30.6	31.1	24.8	27.7	.140	.159	.101	.124	.81	92	74	81	W b N	W N W	N	—	Clear; aurora from 8 pm to 3 am.
19	30.259	30.099	29.960	30.037	26.6	35.8	36.8	31.2	.106	.142	.195	.160	.73	68	90	81	E S E	E by S	E b S	.405	Clear am; fine; rain at 11 pm.
20	29.744	29.709	29.725	29.721	36.2	40.4	39.6	38.5	.206	.244	.217	.226	.97	98	98	97	E S E	E N E	N E	.440	Dense fog; rain most of the day:
21	29.688	29.468	29.430	29.511	37.0	35.3	34.8	35.3	.205	.201	.191	.195	.94	98	95	95	N E b E	NE b E	N E	.570	Or'cst; raining nearly all day.
22	29.514	29.622	29.701	29.575	35.0	40.2	37.0	37.6	.190	.180	.187	.198	.94	73	85	89	S W b S	W S W	SW bW	—	Overcast all day.
23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	SW b W	E	N E	Inappl	Clouded; slight rain at night.
24	29,338	29.380	29,744	29,574	37.0	40.0	32,2	35.5	.218	.213	.164	.193	.100	87	91	93	calm.	N W	N W	—	Cld'd during day; clear at night
25	29,957	29.966	29.950	29.966	28.4	35.2	27.6	30.6	.148	.163	.138	.149	.95	80	90	87	NWb W	S by W	Calm.	—	Clear and unclouded; fine day.
26	29.930	29.790	29.613	29.729	29.4	36.4	38.0	35.8	.156	.178	.178	.178	.96	83	79	85	calm	E N E	N E b E	.275	Overcast; raining during night.
27	29.464	29.570	29.677	29.590	37.0	40.6	29.7	34.3	.214	.195	.163	.176	.98	78	98	88	Calm.	NW bW	W N W	Inappl	Raining 6 am; snow midnight.
28	29.597	29.538	29.636	29.603	23.6	26.0	18.9	22.3	.126	.122	.092	.105	.97	86	87	85	N W	W by N	W S W	—	Cld'd; aurora from 8pm till 4 pm
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mn	29.773	29.734	29.750	29.7559	26.5	31.3	27.3	28.42	0,142	0.149	0.139	43.90	0.1	81	86	85	5.40	8.37	7.35	2,600	

Highest Barometer,.....30.325 at 10 a.m. on 12th } Monthly
Lowest do. .....29.004 at noon on 15th } Range,1.321

Highest obs. Temperature.... 50.2 at 2p.m on the 15th } Monthly
Lowest do. do .... 1.2 at 10 a. m. on 8th } Range 49.0

Mean Max. Therm, 32 51 } Mean Daily
Mean Min. do. 22 16 } Range..10.34

Greatest Daily range.....30.0 from 2 p.m. of 15th to a.m. of 16th

Warmest Day, 20th.—Mean Temperature, 38.48 }
Coldest Day, 6th,—Do do 10.75 } Difference 27.73

Warmest hour, 2 p m.–Mean temperature, 31.31 }
Coldest hour, 6 a.m.– do do 26.49 }

Mean Diurnal Variation..... 4.82

Sum of the Atmospheric Currents in miles resolved into the fo r Cardinal directions.

North,	West	South	East
1760.3	2195 9	1168,8	995 2

Mean velocity of the wind, 6.94 miles per hour.

Greatest velocity, 23.8 miles from 3 to 4, P.M. on the 15th

Most Windy day, 8th .mean velocity per hour, 14.15 miles

Least do, 25th, do, do, 2,63 miles

Most Windy hour, 3 p.m. mean velocity, 9,32 miles per do.

Least do. 8 a.m do. 5,33 do.

Mean diurnal variation, 3,99 miles per hour.

The amount of ice collected was greater than ever remembered.

Year	Temperature. Mean	Max..	Min.	Range.	Rain. No of days	Inches	Snow. Days.	Inche.
1841..	23.20	44.1	1.3	45 4	1	impf't	9	—
1842..	27.90	50 2	2.9	47.3	8	3.625	9	—
1843..	15.52	38.5	9.4	47 9	1	0.475	21	14.4
1844..	27.72	47.9	0.6	47.3	4	0.430	7	10.0
1845..	26 45	49.1	4.2	53.3	5	imprf't	9	19,0
1846..	20.80	41.9	16.7	58.6	0	none	13	46.1
1847..	22.48	41.1	0 9	42.0	2	0.550	13	27.3
1848..	26 28	46.6	0.0	46.6	4	0.775	8	10,8
1849..	19.99	40.6	9 8	50.4	2	0 240	3	19.3
1850..	26 58	49.6	1.2	48.4	7	1.935	19	23.1
1851..	28.42	50.2	1.2	49.0	7	2.600	4	2.4

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☞ The names of the contributors of original papers to the Volume are given in small-capital letters, with the titles of their respective articles, in most cases abridged.