

for the theory of this constancy in the plan upon which the skeletons of vertebrated animals are constructed, in the distribution of the nutritious arteries of the bones. In the stages of development of the most perfect skeletons of the vertebrata, we perceive but a repetition of the stages we passed through since we commenced with the cartilaginous fishes. The earthy matter that is employed in this great division of the animal kingdom to consolidate the organs of support, is not the same as that which was employed to consolidate those heavy massive coverings that were thrown for protection over the bodies of molluscous and inferior animals. A much denser material, the phosphate of lime, is here employed to support the great, elevated, durable fabrics of these large animals. But whatever forms these earthy materials may assume, and whether placed in the interior of the soft parts or on their surface, they are still due to the living processes of the system, and are permeated by animal matter; they are normal parts of the structure, intimately connected with the soft parts, and influenced by their contact, and they serve alike to give form, protection, and support, to the whole fabric.

REMARKS ON

DELIRIUM TREMENS,

ITS COMPLICATIONS AND TREATMENT.

*By P. BENNETT LUCAS, Esq., Surgeon,
London.*

THIS most interesting and singular disease has within the last few years attracted in an especial manner the attention of the profession, and many valuable papers have been dedicated to its consideration in the several medical periodicals. Upon its distinguishing characters all are agreed, but upon the pathology of the affection, and the manner of treating it, a similar unity of sentiment does not exist, and this is the more to be regretted, in consequence of the remedies proposed for its cure being very opposite in their effects. When, for instance, we find some practitioners recommending bleeding, and others violently opposing the use of the lancet under any circumstances; when we find opium recommended, from a moderate to what may be termed an immoderate dose; when the habitual stimulus is liberally supplied on the one hand, and as unceremoniously dismissed upon the other; when restraint is considered as taking

away one out of the few chances we have of our patient's recovery, and a strait-waistcoat is resorted to with benefit; when, in short, we read of decided success stated to attend very opposite modes of treatment,—either the disease must have presented itself under very different aspects, or circumstances must have occurred to call for other remedies besides those usually recommended.

A practitioner, for the first time, recognising the disease, and referring to his library for some practical information, would, in consequence of these differences of opinion, feel at least undecided what course to pursue, and did not his own judgment direct the administration of his remedies, he would, in all probability, have little reason to congratulate himself for relying upon the indiscriminate recommendation he fixed on, and so scrupulously adhered to.

Did delirium tremens always present itself in its simple uncomplicated form, its treatment would be reduced within a very small compass, and a sound sleep being its natural cure, all our remedies would be directed to the attainment of that salutary end. But unfortunately this is not the case. In some instances the membranes of the brain are actively inflamed; in others the chest is engaged; in others the stomach and bowels; and it is very seldom indeed that the disease is met with, except in complication with some local or constitutional affection, demanding the omission of remedies considered by some as specifics, and the administration of others very opposite in their characters. The constitution of the patient, the manner in which the disease was induced, and previous habits, will, in general, render the disease more or less manageable, and will influence the determination to various organs. In the habitual tippler, who lives only in excitement, and who solicits the disease by an excess of devotion to his accustomed idol, the stomach and bowels will be the organs found most often implicated; such a patient having, in addition to the characteristic symptoms, nausea, vomiting, pain in the epigastrium, and scanty, slimy, dejections. Under other circumstances, from hereditary predisposition and dissipation, the lungs become the organs engaged; and in one instance of this kind which came under my observation, the patient, after recovering from the disease, died in three weeks of confirmed phthisis. In other cases, a few hours after the disease shows itself, the pulse becomes quick, and loses its soft heat; the pupils become contracted, the eye suffused, the face flushed; the patient gets violent, but is

easily controlled by words. Here the individual will not present a constitution tampered with by habitual intemperance, but one rather of an opposite kind; his state previous to the excess which induced the attack being one of sound health.

So long then as the disease presents itself in combination with these different affections, so long must our remedies vary, and bleeding, opium, stimuli, purgatives, &c., be resorted to with advantage in judicious hands, and under various circumstances. The symptoms of the affection in all its complications are very characteristic, and are never masked. No matter in what constitution it occurs, whether in the weak or robust, whether induced by a continued or a transitory debauch, whether inflammation or congestion be present, the tremor of the hands, the restlessness of body, the wandering eye, the absence of sleep, and the mental delusions, are always present, and these, together with the patient being easily controlled, leave little doubt of the existence of the disease.

Having witnessed in the course of my practice many cases of delirium tremens in its simple and complicated forms, where remedies very opposite in their effects were administered with the happiest results, and having lately had, through the kindness of Mr. Cosgreave, further opportunities afforded me of seeing the disease in the extensive parish of St. Clement's Danes, the surgeoncy to which he so ably fills, and in which parish it is very prevalent, I am emboldened to add my mite to the information already accumulated, with a view of determining those complications which call for opposite methods of treatment; and this I do with the less hesitation, having it in my power to illustrate any opinions I advance, by reference to cases, "which," to use the words of an able surgeon now no more, "may be compared to the representation an artist gives of natural objects, and are only valuable inasmuch as they are correct and vivid delineations of reality."

Before proceeding, however, with this view, it will not be out of course, and certainly not uninteresting, to make a few observations upon the pathology of the disease, for unless clear ideas are entertained upon this head, practice, no matter how successful, bears upon it the stamp of empiricism. In common with those diseases which have their seat in the brain and nervous system, and which are not dependent upon pressure, inflammation, or other obvious causes, morbid anatomy has failed to demonstrate any lesions in these

organs, or even the slightest deviation from healthy structure.*

Some years since Mr. Howship stated that the disease was produced by a deficiency in the necessary supplies of nutritious matter to the vascular system, caused by long suspension of the digestive process, and he found in his dissections the blood contained in the vessels, particularly in the veins of the brain, like water, scarcely tinged, and in the arteries pale and thin, from the great deficiency of crassamentum. The volume which contained these observations was entitled "Practical Remarks upon Indigestion, &c.," and when the affection under consideration was included in the work, it was to be expected the disease would be referred to the digestive organs and vascular system.

Although post-mortem examination has contributed little to our knowledge of the nature of delirium tremens, yet another channel presents itself, equally interesting and more practically important, embracing the symptoms of the disease, their exciting causes, and the remedies to which they yield, and these three circumstances appear to me to afford abundant evidence of the brain and nerves, being the organs directly affected, independent of derangements occurring in other parts of the system, which foreign derangements, when present, may always be traced to constitution, temperament, previous habits of life, exposure to cold, injuries, &c., and have nothing to do with producing the disease, but merely exist in company with it, continuing their progress after its symptoms have subsided, and yielding to the various remedies applicable to them. It is the too sudden withdrawal of an habitual stimulus, or a fit of intoxication occurring to an individual unaccustomed to such excesses, which gives rise to the affection. The brain and nervous system are, in the first place, in a high degree of excitement, the stimulus which produced it is suddenly given up, and a lesser degree continues to operate. In all cases of delirium tremens, I look upon this state to exist, and in no instance a diminution of nervous energy to be present.

But in taking this view, it is necessary to observe, that I use the term excitement in reference to the state of health the individual enjoyed previous to his indulging

* A fortnight since I had an opportunity afforded me of examining a patient who died in the workhouse of St. Clement's Danes of puerperal mania, five days after her confinement. There was an evident want of vascularity in the brain and membranes, the choroid plexus was pale, the venæ Galeni empty; but not the slightest deviation from healthy structure, or from the natural consistence of the cerebral mass.

in the excesses which gave rise to the disease, for unless this be taken as the standard of comparison, the expression, diminution of nervous energy, would be more applicable, as it is to every state which follows the slightest temporary excitement.

In those cases where patients have not enervated their constitutions by habitual intemperance, a train of symptoms exists demanding depletion before the administration of other remedies, and the withdrawal of stimulants is followed by the happiest results. In the year 1832, when in charge of the cholera hospital at Bantrey, Mr. Young, an acute observer and safe practitioner, mentioned to me, that in the majority of his cases he was in the habit of using the lancet with marked advantage, and that they generally were individuals of good constitutions, who brought on the disease by sudden fits of intoxication, such as often take place at country fairs and other meetings, where business is quickly followed by liberal indulgences to Bacchus. An habitual tippler, or worn-down drunkard, will, on the contrary, present symptoms contra-indicating depletion; but such individuals in their healthiest moments have constitutions below par, if I may use the expression, and when attacked with the disease, their pulse acquires a strong beat, additional energy is communicated to their muscular fibre, and their entire demeanour betrays comparative excitement; the disease seems to produce upon their frame the same effects which moderate quantities of intoxicating liquors do upon that of healthy individuals in their convivial moments, with this important difference, that whilst the constitutional powers of the latter possess in themselves sufficient natural energy to restore the equilibrium which the additional excitement disturbed, the former sink into a state approaching collapse, unless the artificial constitutions they by their habits of life have established be kept awake by the accustomed stimulus. It is when this stimulus is withdrawn that such patients betray loss of nervous power; and a similar effect would be produced, whether they laboured under delirium tremens, or were in their ordinary health; and hence, also, when such become the subjects of operation, the surgeon administers wine and opium, knowing that an opposite practice would be attended with fatal consequences.

For these reasons I look upon delirium tremens as a disease of excitement, the intensity of which is modified by the constitution of the individual, requiring treatment accordingly, and that any apparent diminution of nervous energy bears reference to the standard of an artificially

excited constitution, and not to the standard of a natural health. The feeblish individual betrays this state when labouring under the disease; his brain is constantly on the alert, and his imaginations are in proportion to the sensibility of that organ; his muscular energy is increased, enabling him to make considerable bodily exertions, such as moving heavy articles of furniture, taking long walks, &c.; and this state continues until the disease proves fatal by convulsion or coma, or until a happier termination is brought about, by nature administering to his excited frame the soothing effects of her own remedy, sleep!

The innocent sleep!

Balm of hurt minds, great Nature's second course;
Chief nourisher of life's feast.

Having extended these observations to a greater length than I originally intended, I shall proceed briefly to class the disease under the following heads, giving cases from my note-book illustrative of each, and reserve for the conclusion a few remarks upon some interesting facts which they present, and upon some rules of practice which I conceive applicable to the disease under every complication.

1. Uncomplicated delirium tremens.
2. Delirium tremens complicated with gastric symptoms.
3. Delirium tremens complicated with hepatitis.
4. Delirium tremens complicated with meningitis.
5. Delirium tremens complicated with phthisis.
6. Modified delirium tremens.

CASE 1.—*Uncomplicated Delirium Tremens.*

Feb. 20th. — King, ætat. 33, habitually intemperate; seven years since had a violent attack of delirium tremens, brought on by drinking, for which he was bled, and got pills. Since then he has had repeated slight attacks, but never of intensity sufficient to call for medical interference. He had been in a state of intoxication all last week, left off drinking two days ago, and on the 19th showed symptoms of the disease.—Present state. Pulse 84; tongue clean; head rather warm. No perspiration; eyes bright; pupils natural; no vascularity of conjunctivæ; tremors of hands and general restlessness; looking suspiciously about; bowels natural; no headach; absence of sleep. Says he was tormented all last night by apparitions, and now speaks of being left money, having important business, &c.

R *Opii Purif.* gr. iv; *Camphoræ* gr. xvj. M. Ft. pil. iv equales. Sumat ij statim, et rept. j tertiis horis. To have a pint of porter daily.

21. Left his home immediately after yesterday's visit, and returned at night, after having walked, by his own statement, over twenty miles; took two of the pills, went to bed, and slept soundly for six hours, after which he got up, showed symptoms as before, but was not so violent. Has taken all the medicine; pulse 72; tongue clean; head warm and dry; urine straw-coloured and natural in quantity; is walking about examining the lock of his room door, &c. Says he was tormented all night with bugs in his hair. Tremors have subsided. Cont. pil. j tertiis horis.

22. Took four pills; had a sound sleep until ten o'clock this morning; wishes to remain in bed; quiet; inclined to doze. A profuse perspiration over head and neck. Habt. *Pil. Op. c. Camph.* j, h. s.

23. Slept well last night; is up and convalescent.

R *Pil. Hydr.*,
Ext. Col. C., aa gr. xij, in pilulas sex.
Sumat ij p. r. n.

CASE 2.—*Delirium Tremens complicated with Gastric Symptoms.*

Jan. 17. Barrett, æt. 30, a cab driver, has been in the habit of gin drinking for several years, but never had an attack of delirium tremens. Has been subject to bowel affections, and two months since had dysentery, for which he was treated at one of the public dispensaries and cured. On the 16th, after being inebriated for four successive days and exposed to inclemencies of weather, he ceased drinking, and on the afternoon of this day presented the following symptoms:—Tremors of hands; general restlessness of body; hurried speaking; imagines he sees several of his relatives in the room; his attention can be fixed by speaking determinedly to him; countenance pallid; skin clammy; tongue white; pulse 80 and soft; pupils natural; conjunctivæ pale and glassy; urinates freely; bowels moved continually, and the dejections are small in quantity and slimy. Pain upon pressure over the epigastrium and lower part of abdomen.

Habt. *Pil. Op. c. Camph.* No. iij, j; tertiis horis.

18. Has taken the pills; tremors have subsided; he speaks rationally; has had no sleep. When he attempts to doze, is disturbed by unpleasant thoughts, frightful appearances, &c.; great thirst; bowels not moved since this morning skin dry;

pain over abdomen continues. Contin. pil. j tertiis horis.

19. Absence of sleep and restlessness the only symptoms present. Contin. pil. ut antea.

20. At six o'clock yesterday evening fell into a sound sleep, and awoke this morning at two; has dozed since, and is perfectly convalescent; bowels not moved.

Ol. Ricini ʒj statim.

21. At his occupation.

CASE 3.—*Delirium Tremens complicated with Gastric Symptoms, occurring in a constitution the reverse of Case 2.*

Harry Jones, æt. 30, a pugilist, has been attending meetings of the *fancy* for the last week, and indulged in gin, brandy, porter, &c., to intoxication. Left off drinking on Thursday evening, and on Friday was attacked with continued retching, and was visited by a medical gentleman, who ordered him purgative pills, and an aperient mixture, which operated three or four times.

Saturday. Complains of pain upon pressure over the lower part of abdomen and epigastrium; tremors; is quiet; has profuse perspirations over head and neck; nausea; can eat nothing; wishes for cold water; urinated once, small in quantity, and high coloured; thinks he sees monkeys, and points to them; addresses himself to Tom Spring, and fancies he is on board ship winding up a windlass; tongue white; pulse 112.

R *Calomel.* gr. ij;

Opii Purif. gr. j. M. Ft. pilula. Sumat j 4tis horis.

Stimulants withdrawn.

Sunday. Took four pills; dozed during the night; is inclined to sleep; perspiration continues; pain on pressure less; pulse 96; bowels not moved.

Monday. Slept soundly last night; bowels moved once this morning; tremors have subsided; no pain upon pressing the abdomen; pulse 90.

R *Ol. Ricini* ʒi;

Tinct. Opii gutt. xx, h. s. s. Beef tea.

Tuesday. From home.

CASE 4.—*Delirium Tremens complicated with Hepatitis and Jaundice.*

April 1. — Green, æt. 35, a stout healthy man, fell against a table, and received a hurt in his left side; complains of difficulty of breathing, and pain upon pressure; no fracture of ribs; says he is a temperate man, and did not exceed a pint of porter the day of the accident; pulse 96; skin dry; tongue white; bowels costive.

V.S. ad ʒxvj. *Pil. aperient.* ij, h. s.

Bleeding has made no impression upon the pulse, but has relieved the difficulty of breathing.

2. Pills operated eight or nine times; pain in the side continues; had disturbed sleep, and early this morning showed symptoms of delirium tremens. He has now tremors of hands; strange fancies; pulse 80, full. Upon asking his friends, it was ascertained that he had been indulging to inebriation for three days, and ceased drinking the evening of the accident. He is not habitually intemperate. Says he was amongst rats and monkeys all night.

Habt. *Enema Amyli c. Træ. Opii* gutt. xxv, et rept. post horas tres somno absente. Applicat emp. vesicat. lateri.

3. Got two enemata; no sleep; tremors and optical delusions continue; complains of slight cough; face and conjunctivæ of a yellow tinge, the latter particularly so; pain on pressure over the region of the liver.

Rept. enemata. Veal broth.

4. Three enemata were administered without producing rest, or removing any of the symptoms. He talks quick and agitated, and is fearful he will not get money which was left him some time since by a relative; pulse 86; has cramps occasionally in his fingers and legs. Omit enemata.

R *Opii Purif.* gr. ij;
Camphoræ gr. viij. M. Ft. pil. ij, et statim sumende, et rept. post horas quatuor somno absente.

5. After taking four pills he went to sleep; is free from tremors and optical delusions; fears he will die, and is reading the Scriptures; conjunctivæ very yellow; pain over region of liver continues; pulse 80; bowels confined.

R *Calomelanos* gr. iv;
Pulv. Aloes gr. iv;
Ol. Carui gutt. ij;
Saponis q. s. ft. pil. ij. Sumat j statim et rept. post horas sex ad effectum.

Rept. *Pil. Opii c. Camph.* j, h. s.

6. One pill moved the bowels twice; took the opiate at night, and had a good sleep; pulse 78; pain over liver continues. Veal broth.

7. All symptoms of delirium tremens have subsided; is walking about his room.

Habt. *Pil. Hydr.* gr. xv in pil. tres; sumat j omni nocte.

CASE 5.—*Delirium Tremens complicated with Meningitis.*

Jan. 27. Mr. B., æt. 54, sanguine temperament, and stout habit of body. Three days after a fit of drinking was attacked with tremors of hands and general restlessness; had no sleep last night; face flushed; pulse 120; skin warm; profuse perspiration over head and upper extremities; conjunctivæ red; pupils contracted; speaks hurriedly, and as if frightened; is easily made to remain quiet; promises to do so, but when left alone attempts to get out of bed; fancies he sees monkeys, rats, &c., and thinks his bed is filled with guineas. When asked to show them he catches the tufts of the counterpane, and says, "Look at them." Bowels confined.

V. S. ad 3xvj;

Habt. *Calomelanos* gr. xx, statim; nec non

Pil. Opii c. Camphor. vj; sumat j tertiiis horis.

Stimuli withdrawn.

28. Bowels moved twice; pulse 90; conjunctivæ of a yellowish red hue; pupils contracted; is much quieter, but had no sleep, and is very watchful; tremors continue; talks wildly; hands swollen and vascular. Contin. *Pil. Op. c. Camphora.*

29. Took four pills; had a sound sleep; tremors have subsided; wishes to remain undisturbed; bowels not moved since yesterday; pulse 90.

R *Calomel*,
Pulv. Aloes, aa gr. viij;
Ol. Carui gutt. ij;
Saponis q. s. ft. pil. ij, h. s. Broth.

30. Bowels moved once largely; is convalescent.

CASE 6.—*Delirium Tremens complicated with Phthisis.*

M. T., æt. 29, received an extensive cut between his index finger and thumb, and conceiving injuries so situated to be generally followed by lock-jaw, consulted me respecting it. He stated that the wound occurred in a drunken brawl the evening before, and his manner betrayed great nervousness. Having dressed it I desired him to remain quiet, and to dismiss from his mind any idea of its being followed by the consequence he supposed. The next morning I was requested to see him, and found him labouring under delirium tremens. In addition to the symptoms characteristic of the disease, he had a constant cough and purulent expectoration. Under the administration of acetate of morphia and camphor mixture the delirium tremens subsided, but the cough

continued, the sputæ became tinged with blood, he had profuse perspirations, and three weeks after I first saw him he died hectic. Upon inquiring from his friends, it was ascertained he had led a very irregular life, and for the year previous to his death was subject to pain and cough. The daily report of this case I have before me, but its great length induces me to give it in the present form.

CASES 7 & 8.—*Modified Delirium Tremens.*

Whilst doing duty for my friend Dr. Macnamara, at the Cork General Dispensary, a patient presented himself, and stated that a crust of bread had stuck in his throat that morning at breakfast, that he could neither get it up nor down, and came for the purpose of having an instrument passed, such as he saw used some months before in a similar case which occurred to a friend of his. The man told his story so plausibly, that I took a probang and was proceeding to introduce it, when, upon opening his mouth for the purpose, his tongue appeared white and furred, and his breath had the heavy odour so peculiar to drunkards. Upon making further inquiries, he confessed he had been drunk for some days, and had only the day before resumed temperate habits. His face was flushed, his pulse natural, he had no tremors, but was restless, speaking hurriedly, and making continued efforts to swallow the obstructing body. To please him I passed the probang, without meeting any obstruction, gave him some water, of which he drank freely and went away. In a few minutes he returned to have the operation repeated. He was prevailed on to go to bed, and take a draught containing a full dose of laudanum, after which he fell asleep, which effectually removed all his fancies.

Mr. —, a confirmed drunkard, for the last three years has been the subject of various attacks of delirium tremens. His habitual stimulus is whiskey. When the disease attacked him he always left his home, and consulted several medical men under the supposition that he had contracted gonorrhœa.* He never had tremors, but was very restless; he spoke hurriedly, had a natural pulse, and a pale yellow countenance. I attended him several times, and always succeeded in sub-

duing the disease by the administration of a large opiate, with camphor mixture, and the use of his habitual stimulus in moderation.

Remarks.

The cases just related I have selected from my note-book, and have ventured to class them in the order I have done, for the purpose of contrasting the methods of treatment pursued, and not with the idea that the classification embraces every variety of the disease. Many other complications must necessarily attend delirium tremens, and require suitable treatment; but those I have selected embrace every variety which came under my own observation, and to give the reports of other cases which are lying before me would be a work of supererogation, as they present no new feature, either in symptoms or treatment, and are all referable to one of the above classes.

It is evident that the great desideratum in every variety of treatment is, to procure for the patient a long uninterrupted sleep, and no matter by what means this desirable end is brought about, the symptoms are sure to subside, and the recovery of the patient to be certain. Opium judiciously administered will fulfil this object, but in some cases, unless other remedies precede its exhibition, this powerful medicine will have the very contrary effect, and instead of inducing sleep, will aggravate all the symptoms, particularly the delirium. In those cases where the brain or its membranes become actively engaged, opium should not be given in the first instance. Such patients will bear a large bleeding, and the symptoms will be greatly subdued by such practice. Neither will the administration of the habitual or any other stimulus be attended with good effects; on the contrary, they should be cautiously avoided, for patients labouring under this complication are invariably of a stout constitution, not enervated by tippling, and in general are strangers to the use of intoxicating liquors, except upon occasional revels, when they exceed all bounds. In the habitual tippler, nothing preparatory need be done, but opium administered immediately, and the allowance of stimuli in the proportions he was accustomed to previous to the disease attacking him.

Camphor, in combination, will be found of much benefit, particularly in the latter class of patients, and in those complications where the stomach and intestines are engaged, calomel may be given with advantage. Indeed in almost every complication of the disease this medicine is called for, and may be given in a full dose

* Upon one occasion this patient consulted a young medical pupil, who, taking his word for the existence of gonorrhœa, prescribed six drams of balsam capivi, with the usual directions. Mr. — supposing, however, that if little would be good the entire would be better, took the contents of the bottle at one dose; it operated upon his bowels several times in the course of a few hours, but was not followed by any bad consequences.

before the exhibition of opium, or in combination with it, for whether the state of the liver which belongs to the dram-drinker be considered, or the very interesting pathological connexion existing between this organ and the brain, when the latter is the subject of disease, calomel must be of benefit in regulating its secretions and rousing the torpidity which attends the organ under such circumstances. Restraint should never be resorted to, but free exercise permitted to the individual, the beneficial effects of which were very evident in the case of King; and where the patient never attempts injury to himself or others, and can be easily controlled by common attention, the use of forcible measures, with a strait-waistcoat, &c. would be worse than cruel. In the last case of the disease which came under my notice, (Case 4, Green,) I was induced to try the effects of anodyne injections in consequence of the very favourable manner in which they have lately been spoken of by Baron Dupuytren in his cases of delirium traumaticum, thinking that a similar plan of treatment would succeed, and I delayed sending this paper to your valuable journal until such an opportunity presented itself. In the case alluded to five enemata were administered without the least benefit; indeed the symptoms were rather increased; in consequence they were laid aside, and opium, in combination with camphor, was given by the mouth, which answered the desired end. This case I saw a few days since, and had to prescribe a continuation of the blue pill, with a mild bitter, the secretions of the liver not being perfectly restored. The patient in other respects is in good health, and at his business.

98, Guildford-street, Russell-square,
April 21st, 1834.

EPIZOOTIC DISEASE IN A PIG,

Similar to that prevailing among Swine during the last Two Years, and somewhat analogous to Malignant Cholera, apparently induced by Contagion from Infected Clothes.

Communicated by JOHN COLVAN, M.D.,
Licen. of King and Queen's Coll. of Phys. in Ireland, M.R.C.S.L., Phys. Armagh City Fever Hospital, and Armagh Cholera Hosp.

TERENCE QUIN, town-beadle and caretaker of the Armagh Cholera Hospital, states, that on Saturday morning, March 1, 1834, after the admission of Wm. Dillon*

into the Cholera Hospital, he threw the clothes of that patient down in the passage where the cot for the conveyance of the patients usually stands, and that having been very busy in another direction, he forgot to remove them until late at night. In the evening he saw a little pig of his, aged about six months, and hitherto "quite stout and well, and a good feeder, rooting among Dillon's clothes." His daughter Biddy also observed the same. Next morning his daughter told him that the pig was not well, as it did not come to its meal as usual at her call. It continued to lie down, and panted very much, having a kind of spasmodic inspiration, and would neither eat nor drink. Next day, Monday, it became *discoloured* about the ears, sides of the face, and throat. The hue was a dark crimson or purplish colour. It lies on either side on which it is placed, breathes very quick, and with a spasmodic catch, and is of a decided purple over its whole surface. It appears stupid, and not easily roused, even by considerable force; takes no meat, and scarcely any drink, and passes neither stools nor urine.* The disease, in every particular, resembles that which has been so prevalent during the two last seasons among the swine, and, in some respects, the form of malignant cholera which has existed among the human species. Quin has two other pigs a little larger and older than this one. All three were fed and treated in every respect alike, but only this one got to the clothes, and this one only is ill; the others are in eat, drink, and sleep, well, and effect all the necessary evacuations with regularity. The sick pig had been six or seven weeks in Quin's possession before it became ill. It may be remarked, that he occasionally gave his pigs a little sulphur in their meat to prevent disorder. He is a man worthy of credit, and ready to testify to the truth of the foregoing statement.

I saw the pig on the third or fourth day, and regularly afterwards. Quin cut one of its ears quite through, but it did not bleed. He also made a deep incision at the root of the tail, which also did not bleed, and he administered injections which brought away a few trifling scybala. The animal livid seven days from the first period of its illness. On the day after its death, Sunday, March 2nd, I got a butcher who was conversant with the disease in pigs, to open the body in my presence, and the following were the appearances on inspection. *Externally*.—Ears, sides of the face, hams, and belly, extremely

* A man who died of the most malignant cholera, and very rapidly.

* In the porcine epidemic of last year, dysentery and diarrhoea were among the most prominent symptoms. This year *quite the reverse* is the case.