other hand, when there is the maximum of sewage, the water is often almost bright, yielding comparatively little earthy deposit. At this time, even at Greenwich, it is rare to find more than a trace of common salt or sulphates; we find traces of nitric acid, and a greater abundance of animalcules, especially of the *Paramæcium*, of protophytes, and of unconverted organic matter. But I think it has not been proved by distinct evidence that this unconverted organic matter exists in a form which is capable of producing disease, so long, that is, as it is not deposited on the banks."

We have already called attention to the unwholesome influence of the foul banks of slime, teeming with organic matter, that every low tide leaves on the margins of our Acherontic river. Whilst these are allowed to accumulate and taint the air by their emanations—whilst there are exposed at low tide the renderings of every sewer that,

"with disemboing streams,
Rolls its large tribute of dead dogs to Thames,—

the wisest sanitary regulations will fail to counteract the baneful influence.

THE first of the two contracts for the erection of the new Military Hospital at Netley is already completed. The foundations, undertaken by one contractor, are already laid, and ready for the superstructure to be erected by another. They are surmounted by granite plinths, whereon will rest the immense building, intended to comprise a barrack, a military lunatic asylum, and a "Nightingale hospital" for nurses. The site of the hospital is happily chosen, as just there the chalk stratum makes a dip; so that the foundations rest on a solid bed of gravel, beneath which lies a thick layer of sand, about to be pierced for artesian wells. A large number of fossil shells have been found when excavating.

THE theoretical philanthropists who have so much busied themselves of late about criminal reformation might have learnt a useful lesson at the meeting of "ticket-of-leave men" convened in London last week. In face of an assembly such as there collected, all metaphysical jargon about the criminal mind, and all those Utopian schemes for the reformation of some paulo-post-future race of criminals which seem so plausible from an easy-chair point of view, at once became glaring absurdities. There were a hundred Pariahs of society, scarce one of whom presented any other appearance than that so familiar to all whose lot has brought them much in contact with the very poor. Ill-nourishment, hard living, and a constant fight to ward off starvation, were plainly legible in the squat and stunted figures, the hollow cheeks, and the hungry looks of those present. There was scarcely one well-developed man amongst them all. Several told their stories, and full enough of misery they were—the misery of physical suffering, of want of food. The rough theory of life boldly enunciated by one of their number proved how much the physical condition of hunger influenced their return to vice. "I don't see why I should starve," said this man, "and I'm not going to do it." The ticket-of-leave system was universally condemned by them. It taught them to consider themselves honest men, and taught everyone else to consider them as rogues. They stated, and the assertion seemed probable, that it was only when worn out with hunger—despairing to obtain employment, and with every man's hand against them—they reverted to first principles, and resorted to

"The simple plan,
That they shall take who have the power,
And they shall keep who can."

As notices in reference to the criminal question and the ticket-of-leave system were laid before both Houses of Parliament immediately after they first met, it is probable that these subjects will occupy much attention during the session. We trust it will be remembered, whilst discussing these questions, that criminals are not mere entities tacked on to a development

of the "criminal mind;" that the freed criminal is subject to the same physiological laws which are so carefully studied for his welfare during his residence within the prison walls.

THE old *Dreadnought*, so long moored in the Thames at Greenwich, and employed as a hospital ship, is about to give place to another vessel similarly fitted and appointed. The tough old ship, that has "braved a thousand storms, the battle, and the breeze," is condemned to demolition, and will be shortly towed away to some nautical knacker's yard, and there broken up. The well-known title will be transferred to the new vessel. Erstwhile its name was the *Caledonia*—selected, perchance, in tender remembrance of the lines of Scott—

"Oh! Caledonia, stern and wild,
Meet nurse for a poetic child,"—

though the patients now to be nursed are of somewhat tougher sort and coarser grain. The new *Dreadnought*—"le roi est mort, vive le roi!"—is already fitted and moored alongside the old ship, than which it is both larger and more convenient. Particular attention has been paid to ventilation, and it contains five decks, which are thus arranged:—The upper or weather deck is appointed for the committee-room and commander's apartments; the main deck comprises a mess-room for the medical and other officers, and the chapel; the surgery and dispensary occupy the gun deck; and on the lower gun decks are disposed the nurses' bedrooms and pathological museum. The orlop or lower deck only is appropriated to patients, an allowance that seems somewhat meagre.

THE MEDICAL REFORM BILL.

THE London members of the Conference Committee of the Medical Corporations have expressed an opinion in favour of the principle of the proposal made by the Reform Committee of the British Medical Association, to introduce into the proposed Medical Council a number of members nominated by the Crown; and they have agreed to recommend it to the favourable consideration of their Scotch and Irish colleagues. The following is a copy of the resolution passed by the Conference Committee:—

"That the principle of nomination by the Crown, urged by the Reform Committee of the British Association, be entertained, and submitted to the corporate bodies of Scotland and Ireland, with the expression of a favourable opinion on the part of the London Conference Committee."

Correspondence.

"Audi alteram partem."

THE TOBACCO CONTROVERSY.—IS SMOKING INJURIOUS?

(LETTER FROM MR. SOLLY, F.R.S.)

To the Editor of THE LANCET.

SIR,—I am glad to find that a passage in one of my lectures on Paralysis, which has appeared in THE LANCET, alluding to the injurious effects of tobacco, has induced some of my professional brethren to communicate their views and experience on this important subject. I am quite sure that there are hundreds of medical men who must have observed, though silently, the baneful effects of this noxious weed, and if I can, in any measure, induce those who have time, really to collect facts, and give the result of their experience, I shall materially assist the onward march of truth. Time, careful and truthful observation, can alone finally demonstrate the correctness or shallowness of the opinions I have advanced, and I hope that all who desire to add their mite to the evidence for or against this ques-

tion, will not be ashamed to give their real names, and avoid the imputation of not belonging to a liberal profession, which in all scientific matters seeks the truth and not victory. I will not suppose, as some have suggested, that the anonymous writer is either a past or present dealer in tobacco, but, rather, that feeling ashamed of what he had written, he thought it more prudent to avoid exposing himself. For above ten years I smoked occasionally, and I am well acquainted with all the soothing, calming, and for the time, agreeable effect of a cigar, or even short pipe. I left it entirely off about nine years since. This I did because I believed that it impaired my nervous energy, and I have every reason to be satisfied with the change. Since that time my attention has been uninterruptedly directed to the question—Is tobacco smoking positively injurious? The conclusion, therefore, which I have briefly given to the world through your pages, has not been hastily or capriciously formed on a few isolated facts. For the last twenty years I have been the medical examiner of various insurance offices—the Royal Exchange, the Victoria, the Crown, and New Equitable. The two former I still hold. In my examinations I inquire whether the examinees are in the habit of smoking, and I can now generally tell by the countenance whether they are, or not, habitual smokers. If I have any doubt on this point, an examination of the fauces decides it. The fauces of the smoker are always more or less injected and rough, presenting the appearance of a piece of dirty red velvet, instead of the pale, pinkish, lilac hue of a healthy throat. The tongue, when smoking is not combined with drinking spirits, as is seldom the case in the upper and middle classes, is usually furred and white, but not otherwise unhealthy. This condition of the fauces may be produced and always accompanies, the intemperate use of intoxicating liquors; but then the tongue is unnaturally red, the papillæ at the tip and gustatory papillæ prominent and angry. The condition of the fauces is well worthy the attention of the profession; let them notice it, if possible, in almost every patient that comes before them, and they will soon be struck with the correct index these parts afford of the habits of their possessors. There is one source of fallacy which must, however, be guarded against. This is a temporary vascular injection induced by the long-continued straining of some people when requested to take a deep breath for the purpose of showing the fauces. Where, however, the examiner is aware of this fact, he will find no difficulty in distinguishing the temporary blush from the permanent stain. I may here add, by-the-by, that I have occasionally detected habits of intemperance, which the statement of the examinee, and the letters of his referees, gave no note of. In truth there are many men who habitually drink more than is consistent with longevity, but who never get drunk. Such men invariably declare that they are quite temperate. This condition of the tongue and fauces is not limited to the mouth; it is not a mere local congestion, it exists more or less in the stomach and the rest of the alimentary canal; and hence, I believe, in the otherwise healthy subject, a cigar acts as a moderate purgative, but in typhus as a poison. Can, however, any medical man assert that it is natural or healthy to take an aperient daily? In the habitual smoker the heart is irritable, and the person nervous, the pulse frequently intermittent, and irregular in force and frequency.

In the course of my practice, I have met with many individuals who, like myself, have abandoned smoking because they thought it did not agree with them; many have done so at my suggestion. I have never found one who does not assert most positively that he has been in better health since, and that his intellectual activity has been increased.

Lord Raglan smoked occasionally in early life and previous to his taking the command of the army of the East, but after that time, and during the whole of his sojourn in the Crimea, he never smoked at all. Is not this a tacit acknowledgment that smoking interferes more or less with that high intellectual activity which is required in high positions?

I may be told that a certain exalted personage, whose kind-

ness of disposition is only equalled by his moral and physical courage in the discharge of all his duties, smokes habitually without detriment. I can only say, God grant that it may not shorten his valuable life and impair his nervous system!

With regard to the arguments that have been adduced in favour of its innocence, I will first advert to the Turks. The mental condition of the Turks as a nation would be one of the strongest arguments on my side, were the question not complicated with opium. The fact of their longevity as a race must be proved by statistics, to establish the opinion that smoking does not shorten their lives; but even then it would not prove that smoking is innocuous to Englishmen. My assertion that it is especially injurious in England applies to the young men of this country, about whom I am most anxious, because they all live up to fever point. I believe that the injury inflicted by a pipe of tobacco in the mouth of a poor man who lives below par, rather than above it, cannot be appreciated; but not so a cigar smoked by a man who lives high, and uses his brain much. It matters little whether the mere animal, let him be in the shape of a stockbroker's clerk or a country voluptuary, smokes more or less, but I am sure it is incompatible with great and long-continued intellectual activity and that amount of high living which appears almost necessary to health in the imperfect atmosphere of great towns.

The different mode of living on the Continent and here renders all arguments drawn from the effect of smoking on foreigners in favour of the habit scarcely applicable to the inhabitants of this island, though even in Holland, according to the statement of that interesting writer, Dr. Carlyon,* this habit is fatal. The whole passage should be read, but I must limit myself.

"And yet what can be more deleterious than tobacco. Many an honest Deutscher have I seen smoking himself into the grave! Rauch—Rauch—inner Rauch! The countenance pale and haggard, the frame emaciated, the propensity to smoke irresistible!"

I wish that our cousins in America would tell us whether there is no difference in the appearance of the habitual smoker and the man who abstains altogether. I am delighted to learn from Mr. Neil that the habit there has diminished; if so, it is a strong argument against it. The abandonment of it must be the result of experience of its injurious effect, for, once begun, it is too fascinating, too comforting ever to be relinquished, except from a forced conviction of its fatal tendency. It is this fascination in the practice which makes me so anxious to prevent all young men from ever commencing it. I am told that if a man smokes in the streets of Boston, U.S., that he subjects himself to a fine.

I do not think that the argument made use of by one of your correspondents, that smoking and longevity have advanced *pari passu* in this country, goes for anything, inasmuch as the great increase in the habit of smoking has only taken place in the last ten or fifteen years, so we have yet to learn its real effect on the community. I hope that our talented Registrar-General will be able in time to give us some statistics on the subject, and also that our psychologists and mental physicians will give us some account of the average number of lunatics who have been habitual smokers. I have no doubt that Dr. Forbes Winslow will give us some information through the pages of his excellent journal.

Lord Shaftesbury paid a just tribute to our profession when he said, in reference to sanitary matters, that the profession worked at them with such energy and truthfulness, it might be supposed that, instead of living by the *diseases* of mankind, their income was drawn from them, as in China, only when in health. God forbid that we should ever lose this character in England, or that any of us should advocate indulgence in tobacco because we have not perceived its injurious effects on our own persons, or because the habit has become to us a necessary of life! It appears to me that it is our *duty* to discourage any habit that is not conducive to health, and equally *criminal* to encourage a habit which is liable to become a master and a tyrant.

The gentry and aristocracy of this country must not suppose that because the habit of smoking does not lead in their case to drinking, that therefore it injures them not. Hundreds of gentlemen smoke without drinking more than they believe is conducive to health, and smoking does not in their persons lead to intemperance. But from this fact the habit is the more dangerously insidious. Its ill effects are less easily observed; the habit advances in intensity without their perceiving any objection to it; but the penalty is paid nevertheless, and an untimely grave is often the result.

* Early Years and Late Reflections, by Clement Carlyon, M.D., vol. i. p. 39.

One of the best riders to hounds in England, who never smokes, told me that he required much less sleep than his friends, almost all of whom smoke, and that they often remarked with astonishment how fresh he always was in the morning, notwithstanding late hours, champagne, &c. It has been asserted that smoking in India is essential to health; but I have met with many old Indian officers who strongly object to it in that country as leading to drinking; some who have abandoned it while out there, because they found the habit disagree with them, and they invariably declare that their health has been improved by the change. That gallant soldier, General Markham, whose life was sacrificed to his hasty journey from India, never smoked himself, nor would he allow any of his personal staff to do so, so strong was his opinion of its injurious tendency to the soldier's character.

I may be mistaken, but I believe that all our greatest men, I mean intellectually, statesmen, lawyers, warriors, physicians, and surgeons, have either not been smokers, or, if smokers, that they have died prematurely.

I have mentioned the fact regarding Lord Raglan, I may add to it that both Admirals Dundas and Napier gave up smoking as soon as they entered on their respective commands. My friend, Mr. Whitfield, the resident Medical officer at St. Thomas's Hospital, speaks most strongly of the injury he has witnessed from habitual smoking, his experience extending over above forty years, in a hospital containing near 500 beds, and relieving some thousands of out-patients every year. He has seen three cases of delirium tremens induced by tobacco smoke alone. In none of these cases had the patients indulged in drinking intoxicating liquors, so that there was no doubt of the single cause of the disease.

I cannot conclude this lengthy but imperfect epistle without thanking my professional brethren for their important communications on this subject in your pages, and acknowledging the valuable observations on it by Mr. Lizars, whose admirable pamphlet should be read by all smokers and young men thinking of it. The observations of Mr. Higginbottom, of Nottingham, are excellent, and there is also a good article in one of the numbers of the *Medico-Chirurgical Review*, many years back, deserving of attention.

No one will dispute that THE LANCET has done much to relieve suffering humanity, but never, in my opinion, has either the surgical instrument or the periodical done so much good as the present devotion of its pages to this important question, upon which the happiness or misery of thousands depends. So strongly do I feel its importance, that I believe, if the habit of smoking in England advances as it has done during the last ten or twelve years, that the English character will lose that combination of energy and solidity which has hitherto distinguished it, and that England will sink in the scale of nations.

I remain, Sir, yours, &c.,

St. Helen's-place, Jan. 30, 1856.

SAMUEL SOLLY.

REPORT OF A CASE OF

ASPHYXIA FROM CHLOROFORM SUCCESSFULLY TREATED BY THE "MARSHALL HALL READY METHOD."

To the Editor of THE LANCET.

SIR,—On the 28th of January, 1857, I was asked to assist at the operation of tenotomy, in a little boy about four years old. Chloroform was administered, and everything went on well. The operation was concluded; they had ceased giving chloroform, when suddenly the child became perfectly pallid, and apparently lifeless; respiration had ceased. Warm water, cold water, slapping on the face, were had recourse to; none of these excited respiration in the least. Pressure on the sides of the chest was tried, the child remaining in the supine position. This attempt to produce *artificial respiration* was no more effectual than the previous efforts to *excite* respiration had been. The child was now quickly placed in the *prone* position; slight pressure was made on the back, then rotation on to the side and a little beyond. A gasping movement of the mouth followed. The pronation and semi-rotation were repeated three or four times, when respiration became distinct; but being still feeble, semi-rotation and pronation were continued a few more times, with much improvement in the respiration. The inhalation of ammonia with a little sprinkling of water were employed; the latter *now* excited inspiration. They were repeated occasionally till the child showed that it had regained the full power of its lungs by crying, and it was then given into the mother's arms.

In this case it may be remarked that the Ready Method was

not adopted at the very beginning; it might not have been necessary, and we should not have been able to prove that it was. The case was, however, far otherwise. To the pale and apparently lifeless child various excitants of respiration were applied without effect; also artificial respiration was employed in the *supine* position, by the lateral compression of the thorax. This was not attended by the slightest success, and why? Dr. Marshall Hall has shown that the tongue may fall back, and that fluids may accumulate in the pharynx and obstruct the orifice of the larynx in this position. If the patient is to breathe again, the only remedy is to cause the fluids to flow out, and the tongue to fall forwards; and this, it appears to me, can only be effected by the prone and postural method.

I once saw a patient in one of the London hospitals die under chloroform, before the operation for which it was the preparation could be commenced. In that case, I saw excitants of respiration employed; I saw mechanical attempts made to restore respiration in the supine position, by lateral compression and relaxation of the thorax. Up to this point, the case closely resembles the preceding one. Both failed. Galvanism was applied, and there was nothing else to try. The patient, a woman, died (the Ready Method was not then known). But in the case of the little boy it was known—it was tried—he was saved.

I would only add this: chloroform constantly makes patients sick during and after its administration. Now, whether matters are really *vomited* or not, may it not be that attempts at artificial respiration in the supine position (in asphyxia from chloroform) have sometimes failed because of the obstruction of the larynx and glottis by the regurgitation of fluids from the stomach into the pharynx? May not even the spasmodic cough which occurs be due to irritation from the presence of these "foreign matters?" Is not, therefore, the Ready Method specially indicated in these cases? for how can any position but the prone remove these life-destroying liquids and morsels?

I once attempted to resuscitate a still-born child. I had a hot bath ready, and dipped the infant in and out. I tried other means of inducing respiration. Knowing at that time no better way of effecting this, I applied my mouth to its mouth, whilst it was in the supine position. I inflated the lungs certainly by the force I employed; I tried also lateral compression and relaxation of the thorax. Every time I ceased inflating the lungs, thick grumous fluid freely escaped from the mouth. My efforts were useless, and I now believe I blew much fluid with air into the lungs, existing as it did in the pharynx and mouth.

In cases of drowning, in still-born infants, in cases where chloroform has caused asphyxia, fluids, more or less tenacious according to circumstances, do, then, obstruct the glottis; and in such cases no attempt to restore respiration can be effectual till the prone position has removed the obstruction.

I remain, Sir, your obedient servant,

Feb. 1857.

TYRO.

"Winslow, Bucks, Jan. 30th, 1857.

SIR,—A case occurred in the practice of Mr. Denne, in this town, last night, illustrating the great advantages of your Ready Method. In a case of confinement, after a very lingering time, the delivery was completed by forceps. When the child was born there was an immense scalp-tumour, and the usual symptoms of prolonged asphyxia were present,—so much so as to cause a doubt in my mind whether even your Ready Method would perform almost a miracle and resuscitate the child. However, I placed the child in the prone position, and then commenced turning it with the right hand on the side of the chest, the left supporting the head. The movement was repeated about once in a second (such as is marked by the pendulum of a large clock); and after its repetition about twenty-three times, I had the satisfaction of hearing a cry, at first faint, but not by any means so afterwards.

I may add that the cord was cut prior to the child being touched, and that no other means whatever were tried but the rotatory motion.

The astonishment of the women around the bed was excessive, and they firmly believe that a method will be found almost to return the dead to life. The child is alive and well, and adds another name to the list of lives that have been, and will be, saved by the Ready Method.

I have the honour to be, Sir, your obedient servant,

Marshall Hall, Esq., M.D."

THOMAS NEWHAM.

To the Editor of THE LANCET.

SIR,—It appears from THE LANCET of last week, that the Ready Method has been successful in ten cases. For my part,