

ception in the former case of the passages or arcades, and in the latter, of the charbonniers, or charcoal porters, we have another apparent confirmation of the above hypothesis. The arcades are lighted with gas, the combustion of which, and the extrication of a certain amount of carbonic acid gas, may, perhaps, account for an exemption, almost unique in that devoted city. As I am satisfied that recently prepared charcoal always contains more or less carbonic acid gas, which it gives out slowly and gradually, its place being supplied by atmospheric air, persons constantly handling and turning that fuel must inspire, to a greater or less extent, this gas, and hence their exemption.

"Such were the facts which I had collected previously to my journey to Spain; and I was afterwards induced to insert a paper in the *Boletín de Medicina y Cirugía* on the subject, recommending, at the same time, certain measures to be adopted for the prevention of the disease, by extricating carbonic acid gas into the surrounding air. In consequence of the publication of these facts, a number of communications were made to me, confirmative, as the narrators supposed, of the views I propounded, and I will here notice a few of these facts.

"It had been previously remarked by Dr. Sauch, that in one particular street of Barcelona, in which scarcely a house escaped without some of the inmates being attacked with the disease, all the men who worked in the blacksmiths' shops—and there were many in the street—entirely escaped. A more extended inquiry subsequently proved that this exemption was not singular; but that all those engaged in any craft or business, which, like the blacksmiths, required a charcoal fire to be kept constantly burning in the room or shop in which they worked, remained free from the disease.

"Two other circumstances of the same kind, which had been considered as remarkable, but which had not before received any explanation, were observed in Spain. It had been generally remarked, that although the Spanish infantry had been attacked with the disease to the same extent as other classes, the cavalry had almost entirely escaped. Now, it is the general custom, in that country, for the men to sleep in the stables; and as it is apparent that horses, and other animals of that size and class, give out, in expiration, a considerable quantity of carbonic acid gas, to this evolution I and others attributed their exemption.

"Another circumstance was, that in certain villages, principally inhabited by shepherds, not a case occurred, while every other town and hamlet in the surrounding district was attacked and scourged. It appeared, on inquiry, that the flocks of sheep which these men attend are sent out, during the day, to graze in the neighbouring mountains; but that they are all carefully brought back again at night, and penned in the village. If, therefore, the previous deduction be correct, we can have no hesitation in ascribing the escape of the inhabitants of these villages to a similar cause; for the atmosphere in which several thousand sheep were breathing must have been strongly impregnated with carbonic acid gas.

"A friend of mine, a Spanish physician, also informed me that he had seen, in one of the French papers, an account of the singular escape of a town in the south of France from the ravages of the epidemic, forming almost a solitary exception in that particular district. It appeared that the town in question contains one or more large breweries, as well as a number of manufactories, which consumed large quantities of charcoal, for it was stated that the large fires kept constantly burning in every part of the town were considered to be, in some way, the cause of this remarkable exemption.

"To show, however, that the presence of carbonic acid gas in the atmosphere is not only sufficient to neutralize the morbid matter, but that it will also check the progress of the disease, even after it has manifested itself in the system, the following case, narrated with the knowledge and consent of the individual concerned, is now added:—

"A pharmacist in Barcelona, who had just lost a near relative in the same house from the epidemic, had been labouring for several days under premonitory diarrhoea, to arrest which he had taken only simple diluents and gum-water. At this period, a sudden demand for the bi-carbonates of soda and potash, as well as soda-water, obliged the invalid to spend nearly the whole day in his laboratory preparing these medicines. The diarrhoea ceased entirely before the evening, although previously he had been passing seven or eight copious evacuations daily. As there was no other way of accounting satisfactorily for the sudden cessation of the purging, the individual himself ascribed it to the inhalation of a certain quantity of carbonic acid gas, the natural consequence of standing so many hours over vessels from which

it was being evolved,—a conclusion to which I think others also must arrive.

"Now, with respect to the artificial diffusion of a certain quantity of carbonic acid into the atmosphere, a very large extrication of the gas would be necessary; and as this could only be accomplished in particular situations of limited extent, while also we have at present no guide to direct us as to the quantity that ought to be extricated, I do not feel justified in giving directions to others before I have made trial of the method myself. Should I be enabled, hereafter, to give the experiment a trial, I shall not only feel it to be my duty to make the result public, but, at the same time, to give publicity to all the particulars of the method by which the plan has been carried out."

*On the Treatment of Cholera by Carbon and Carbonic Acid.*

By W. PRICE EVANS, Esq., Surgeon, Swansea.

Mr Evans, addressing the Editor of this journal remarks:—

"When I penned the letter you did me the honour to insert in *THE LANCET*, ante, p. 247, I had not read the communication of Dr. Parkin recommending carbon, or rather carbonic acid, in the treatment of cholera. Either Dr. Parkin, or your humble servant has a very confused notion as to the respective properties of charcoal and carbonic acid. Quoth Dr. Parkin, 'Knowing that carbonic acid combines with, and renders innocuous, putrefactive and other substances injurious to animal life, it is neither unreasonable nor unscientific to conclude, &c.' It is evident, from what follows, that it is carbonic acid the Dr. means, and that it is no mis-print for charcoal. Now, as carbonic acid does not possess the properties ascribed to it by Dr. Parkin, I will, *meo periculo*, venture to assert that it is both unreasonable and unscientific 'to conclude that this gas neutralizes the effects of those noxious and excrementitious matters which always exist to a greater or less extent in such situations.'

"Fresh charcoal, on the other hand, possesses in the highest degree the power of absorbing the gases—a fact which, in connexion with others concurrent, induced me, in your last journal, to record my conviction that it had 'the property of absorbing the choleric virus.' According to Mr. J. C. Atkinson, (*THE LANCET*, p. 220), naphthaline also is endowed with the property of absorbing gases. The extract below, from Dr. Ure's Dictionary, will justify me in considering and recommending fresh charcoal as an important preventive and remedial agent, more especially now that the death tread of the fell cholera is daily heard approaching near and still nearer to our shores.

"The following is a tabular view of the volumes of the different gases which were absorbed in the course of twenty-four hours, by one volume of charcoal, in the experiments of M. Theodore de Saussure, which were conducted in a way likely to produce correct results.

Ammoniacal gas	... .. 90	Bicarburetted hydrogen	35.00
Muriatic acid gas	... .. 85	Carbonic oxide	... .. 9.42
Sulphurous acid	... .. 65	Oxygen gas	... .. 9.25
Sulphuretted hydrogen	... .. 55	Nitrogen	... .. 7.50
Nitrous oxide	... .. 40	Carburetted hydrogen	5.00
Carbonic acid gas	... .. 35	Hydrogen gas	... .. 1.75

"The introduction of coke as an article of fuel for household purposes, would ensure a regulated supply of it in the fresh state on the premises, so that all who used it, would in and about their houses have a surface of coke of more or less extent presented to the atmosphere.

"This view of the subject being admitted, it is obvious that the administration of fresh charcoal would be likely to prove useful in other cases, such as in those of cattle, after partaking largely of green food, where enormous distention ensues, consequent on the extrication of the gases."

*Treatment of Cholera by Stimulants, Mercury, and Sesquichloride of Iron.*

By J. R. HANCOCK, Surgeon, Shoreditch, M.R.C.S., &c.

"It appears to me requisite to call upon the Royal College of Physicians, or the Central Board of Health, to come forward and propose some distinct line of treatment, for the guidance of the profession generally, the majority of whom are in of great uncertainty as to the best mode of meeting the enemy.

"In the absence of an authorized mode of treatment, it behoves every practitioner who has had an opportunity of witnessing this direful disease, to come forward and show his experience for the guidance of others. This is my present object,

and I propose to offer a systematic course of medicinal remedies, which in 1831-32, I found most successful in a large majority of my cases, a treatment sanctioned by Dr. Warden, then surgeon of Sheerness Dock-yard, Dr. Gooch of the "Ocean," flag-ship of the same port, and other surgeons, and published in *THE LANCET* of that period.

"Cholera is sometimes ushered in by simple diarrhœa, and at other times commences at once in the most aggravated form, and terminates in death, in the short period—as I have witnessed—of four hours. If the attack begin with a feeling of nausea, a very gentle emetic may preface the other remedies—as two scruples of powdered ipecacuanha. But if merely uneasiness and relaxation of the bowels occur, then a pill of two grains of extract of opium, and four grains of calomel may be given, followed in two hours by three-quarters of an ounce of castor oil. About two hours after this, give two tablespoonfuls of the following mixture, every two, three, or four hours, according to the urgency of the symptoms,—Sesquicarbonate of ammonia, a scruple; sesquicarbonate of soda, a drachm; aromatic confection, a drachm; tincture of capsicum, thirty minims; sedative solution of opium, thirty minims; camphor mixture, to six ounces: mix. To take mercury with chalk, three grains; powdered capsicum, three grains: mix for a powder to be taken every four hours, as well during the collapse stage as that of the simple diarrhœa, always taking care the mercurial preparation be not carried too far. It is of the utmost importance to keep up the secretion of the liver, the proper action of which will be found to be the great security against the after consequences—viz., typhus fever.

"Should the real Asiatic cholera supervene, I would strongly urge upon my professional brethren to try the styptic remedy which I found so remarkably successful in 1832—viz., tincture of sesquichloride of iron. This was my sheet anchor, and I gave it in as concentrated a form as possible, immediately after every ejection.

"Whatever may be the nature, cause, or original seat of disease in Asiatic cholera, the effect produced appears to be an atony of the secretory and excretory ducts and mucous follicles; it therefore follows, as a natural indication, to restore power and tone to these vessels as speedily as possible, and this is best effected by the administration of styptics. When I used the tincture of sesquichloride of iron in 1831-2, its immediate effect in reducing the quantity of fluid ejected was truly astonishing, and it gradually diminished after every dose, until it ceased altogether, and the cure effected. It should be remembered, that after this medicine, the evacuations, instead of being like rice-water, are black, (the effect of the iron;) this should be explained, otherwise the bystanders become much alarmed.

"As a local application for the relief of cramp, I have found the following liniment far preferable to mustard poultices, not only from its stimulating properties, but because the requisite friction in using it is in itself efficacious:—Strong sulphuric acid, a drachm and a half; olive oil, an ounce and a half: mix for an embrocation. The only objection to its use is its destructive action on the linen, which is of very little importance, considering the direful nature of the malady. The hot-air bath should, also, be had recourse to; this is effected by means of a small spirit lamp and apparatus, on the principle of Sir H. Davy's safety lamp, which is merely placed under the bed-clothes, so that any degree of heat may be quickly induced. I cannot too strongly urge the avoidance of *brandy, or large doses of opium; they both enervate the system, prostrate the vital energies, and do more harm than good.* Though the extreme coldness of the surface of the body and of the tongue—nay, the coldness of the breath itself—would seem to indicate the former, it is not so, for the patient complains of the most agonizing thirst, and intense heat in the hypogastric region, which is best allayed by the free use of iced soda water and iced champagne, and small pieces of ice retained in the mouth and occasionally swallowed."

### Reviews.

*A Practical Treatise on the Diseases peculiar to Women, illustrated by Cases derived from Hospital and Private Practice.* By SAMUEL ASHWELL, M.D. Third edition. London: Highley, 1848. pp. 772.

DR. ASHWELL'S work has reached its third edition in four years; a short time, considering the size of the book, and the subject. This fact is a very significant commentary

upon the general, we may say universal, commendation of its critics. The volume assumes to be a practical work, one from which the practitioner may safely prescribe and manipulate, and, as such, it is still the most complete work which has yet appeared in this department of medicine. In the interim between the first and third editions, many works on special subjects relating to the diseases of women have been published, but hardly one which decidedly passes Dr. Ashwell, so as to leave him in the rear at any point. This is great praise, but those who examine the work before us will find it to be strictly true. Where he differs from recent opinions, it is always with candour and liberality.

We shall only here refer to one or two of the new points or prominent topics specially insisted on by Dr. Ashwell in this edition. Of the subject of ulceration of the os and cervix uteri Dr. Ashwell says,—

"I may remark, that Dr. Bennet regards 'ulceration of the cervix as common with pregnant women.' This, probably, if at all, is only true of the lowest class of females. My own experience is entirely opposed to such an opinion, as well as to another of the same author (pp. 37-8), 'that laceration followed by ulceration, is a frequent occurrence in the first stage of labour,'—a statement entirely at variance with the acknowledged fact, that Nature has the power to effect the completion of her own work. Nor can I regard with more favour the conclusion, 'that the state of pregnancy predisposes to inflammation and ulceration of the cervix uteri.' It may be so in prostitutes, and patients suffering from primary and secondary syphilis, in whom pregnancy is happily not a common event; and perhaps it may not be regarded as savouring too much of criticism, if I say that many of the observations of French writers, and even some of our own countrymen who adopt the sentiments of the Parisian school, must be received with great caution in these matters. They are too prone to generalize from the observations they are permitted to make on one section, and that the lowest, in female society. Thus it happens, that the morbid peculiarities of women of abandoned habits, are not infrequently regarded as attaching to the far more numerous class, with whom they have nothing but their sex in common. Hence also the too indiscriminate, and often injurious use of the speculum—the abuse of which has thus far delayed its necessary and justifiable adoption in this country."—pp. 433.

Dr. Ashwell's observations on those comparatively new diseases, anteversion, anteflexion, retroversion, and retroflexion, will be read with great interest, as several recent publications have given these asserted disorders a considerable degree of prominence.

"I have carefully read all which has been recently published on retroflexion of the uterus, but I am still unconvinced as to the supposed frequency of this and the related forms of displacement. I do not agree in Dr. Simpson's opinion, 'that these displacements of the unimpregnated uterus, known by the names of retroversion and retroflexion, anteversion and anteflexion, are very common, and which, from the want of any proper means of diagnosis (the uterine sound), had been almost constantly mistaken for fibrous, carcinomatous, and other tumours situated between the uterus and rectum, or between the uterus and bladder.'

"It is scarcely possible to suppose that any one, with the slightest share of obstetric knowledge and tact, *could* mistake these maladies for fibrous or cancerous tumours, especially when placed between the womb and rectum, or the womb and bladder. In my experience, these diseases are far too serious to allow much hesitation either as to their locality or their symptoms. It is happily otherwise with the supposed very numerous cases of anteversion and retroflexion of the uterus,—cases in which the uterine bougie, (according to Dr. Simpson,) 'by showing the direction of the uterine cavity, and hence of the uterus itself, and by its enabling us, when it is introduced, to change at will the position of the organ, affords a simple means of detecting these displacements.'

"Of such instances, it is fortunate that the results are not always serious; for Dr. Rigby remarks, 'the above case' (*one of retroflexion*) 'presents several features of interest. In the first place, a considerable degree of retroflexion is ascertained to exist, without its producing any derangement or inconvenience whatever; the only change which could have been attributed to it, was the circumstance of the catamenia having been rather more profuse since than before her marriage.'