a glass of gin, a few pence, or even some of the soldiers' bread. Such an one I found on going into a dark room behind the front shop of a public house. In it I could just distinguish a wretched old woman, whom the landlady had allowed to come in for a warm during the slack time of the day, and had also given her some soup and a piece of bread, the only food the poor creature had eaten for two days. She told me that, five years ago, her husband, a shop-keeper, failed. She took to drink, and hawked combs and hairpins about for a living. She soon fell into prostitution. She had been three times in hospital—once seven weeks, once three months, and once ten days. She had two grown-up sons, and a daughter married; they were away, she did not know where, but, as she believed, prosperous. They had become tired of her, and cast her off; and she would gladly get anything that would give her a warm bed, some victuals, and some clothes. The inspector told me this woman was thoroughly idle, and would steal readily enough, if occasion offered. Attempts had been made to reclaim her before, but she soon returned to her old habits. Down a very narrow alley behind a beershop, we found two other girls, occupying a single-roomed cottage—one, as usual, washing; the other sewing. The latter, a stout red-haired girl, answered my questions readily and quietly. "She had not had disease, but did not mind being examined all the same. She thought the hospital a proper place. The loss of her liberty and inability to get drink there were no privations. She had good friends, who would receive her if she went home; but she did not want to go home." Her companion had just come out of hospital, and spoke bitterly at being kept in so long—seven weeks—and all the time nothing the matter with her.

Near the "Orchards", I was shown what may almost be compared to the Wrens' Nests of the Curragh, in the back premises of a beershop, of which the late owner had retired with a competency. This man's brother, who had owned the premises before him, had constructed in the back yard a number of little one-roomed huts, which he let out to the girls at 2s. or 2s. 6d. a week, but requiring them to pass their evening in the tap below, and encourage the soldiers, etc., to drink and spend their money before they retired to these huts. We went into several. Of one, we learned, the occupier had "gone to service"—i.e., gone out of Chatham for a time; in another, a disgraceful scene was being enacted; in a third, two girls were washing and dressing for the evening, one of whom had conjunctivitis, which, at her request, I examined, and showed her how to bathe it with a lotion she had at hand.

Nearly all of them really enjoy their present lazy and for them luxurious life, and prefer it to the hardships of honest labour. These women drink and eat away all their earnings. When diseased they go to the hospital or workhouse. When about to lie in—and most of them bear children, some of them several times—they go to the workhouse, where they leave their children, or put them out to nurse, during the short life that all but very few of these little creatures enjoy. One woman, who had been a prostitute five years, living in a better degree than common, said that she had had three children in the room in which we sat. As soon as born, they had been put out to nurse close by, but were all dead.

The hospital was acknowledged to be a very good thing by all the women with whom I talked. When I told a group that London girls cannot get into such hospitals—a statement they had difficulty in understanding, as they themselves are often sent up to a London Lock Hospital—one declared she would always come back to Chatham if she caught anything in London, for the sake of getting into hospital while ill. One woman said the speculum hurt her a good deal; but still she could put up with that if really ill. I did not meet with more than one or two who could compare the state of affairs before the operation of the Act, with the present; but those who could were very decided in preferring the present state to what it had been before. I could not gather any other objections, held by the women themselves, to the Act, though I had many opportunities of talking with them. I found, also, that most women do not allow the disease to reach such a degree as heretofore. The inspector informed me that some of them, especially those who have been ill before, will apply at once for treatment, if infected, and scrutinise themselves pretty closely. Their habits, he says, are not cleanly, except of such as have separate rooms. I asked the inspector if it would be possible to seek out infected *men* as well as the women, and send them to hospital. He replied that much might be done in this way, as colliers, and men about the harbour, frequently applied to him to learn where they could get medical treatment. He endeavoured to learn, and with much success, what men were about with disease as well as women. He also said, infected men often declined to tell him where they got the disease. These were strangers. Those who knew that the Act did not harm the women made no scruple, and would sometimes even volunteer information. I could not learn much about the amount of clandestine prostitution; there is, no doubt, a

very great deal: but, so far as regards the influence of this Act, it checks rather than increases it. The checks are two. Many young girls, who have not yet become acknowledged prostitutes, are prevented to some extent by the fear of being taken to the surgeon for examination. The inspector is often able to give these girls' friends a word of caution, and intercede with the friends, while the girls are in hospital, to receive them back when they come out. There are many women married to soldiers and sailors who, in their husbands' absence, lead riotous lives. The Act has an excellent effect on these; it renders them liable to examination; and they dread the notoriety which follows their being sent to hospital for examination, as the news is sure to reach their husbands' ears, and their allotment is stopped.

THE ALKALINE TREATMENT OF PNEUMONIA.*

By JOHN POPHAM, M.A., M.B.Dub. and Cantab.,
Physician to the Cork North Infirmary.

IN October 1865, I had, with other hospital physicians, the honour of receiving from Dr. Hughes Bennett of Edinburgh his treatise upon "The Restorative Treatment of Pneumonia," with a request that I would test his mode of practice in any cases of this disease occurring in my wards, so as to enable him to bring the conjoined results of treatment before the British Medical Association, in 1866. It is to be regretted that the invitation given by Dr. Bennett has been as yet but partially accepted, and a question, which admits of an approximate solution by the powerful machinery of an association of well-informed medical gentlemen, like the present, remains still without corroboration or denial.

In the pamphlet in question, which bears the stamp of his vigorous mind, Professor Bennett lays down his plan of treatment upon the broad principle, that we are bound by the rules of medical selection, as well as by the laws of conscience, to adopt that mode of treating any given disease which effects the most cures. In logical language, "that treatment which has the least mortality, is the best." But the minor premise, namely, that "this, that, or the other mode, is that which has the least mortality," is not so readily conceded. The only means to test the point is by the empirical aids of observation and experiment; and if Dr. Bennett's tables of results, brought forward to prove that his method reduces the death-rate in pneumonia to a minimum, be sufficiently corroborated by different observers, at different times and places, it must follow by strict logic, that it is the best. I do not mean to occupy your time with the arguments of Dr. Bennett, but I crave his permission to examine his conclusions. Assuming these to be well founded, is there any leading principle in his cases which necessitates a favourable result? This natural question has been already asked by Dr. Barclay; and Dr. Bennett's invariable fact is, "that nutrients were given as early as possible, while every other treatment capable of diminishing vital force was abstained from." Here we have a positive and a negative element; viz., the positive, that we are to do all to strengthen; the negative, that we are to do nothing to debilitate. After having explained what he means by nutrients, Dr. Bennett, in another place (*Lancet*, December 2nd, 1865), observes that, "to the restorative course, followed by him early in the cases, he attributes all his success, such variable remedies as were employed being either palliative and innocuous, or, by diminishing strength, tending to delay recovery." Although this conclusion about the inefficiency of medicines and medical appliances in strictness applies only to his 125 cases, it would appear that Dr. Bennett deduces therefrom a general inference; namely, that the influence of medicines upon the cure of pneumonia is very little, if any.

In weighing this important opinion, it is obvious that any deductions which rest upon so small a basis as the experience of 125 cases should be received with caution. In giving the results of my own moderate observation, since October 1865, I cannot express too strongly my conviction of the value of restoratives, when early given, in the therapeutics of pneumonia. It is, however, with regret that I refer to the very low opinion which Dr. Bennett entertains of medicines, as being either obstructive, or, at best, superfluous additions to the treatment. Those administered by him were mostly such as are usually given in this disease. He argues that pneumonia has a natural tendency to effect its

* Read in the Medical Section at the meeting of the British Medical Association in Dublin, August 1867.

own cure, and that, when the system is adequately supported until the crisis can come about, nature will do the rest. It is certainly in one sense true, according to the Hippocratic dogma, that "*Natura curat morbos*"; but even Dr. Bennett himself maintains that, in the cure of pneumonia, she needs sustentation from art. Restoratives must be early given. After a severe surgical injury, the inborn, unseen principle, called the *vis medicatrix nature*, sets to work to repair it, but how often does her cunning workmanship require to be supplemented by human skill? Is it not a token that she may fail in the struggle, when we find cases of pneumonia, which have not received any medical treatment, admitted to hospital too late for remedies to take effect? True, it might be said that, if such neglected cases were early supported by "restoratives," the event might have been different; but this is to beg the question. I hope that I am not doing Dr. Bennett an injustice in these comments upon his postponement of medicines; but his view seems so unmistakable that M. Grisolle, in his exhaustive treatise upon pneumonia, classes Dr. Bennett's medicinal treatment as one of *l'expectation*. Dr. Bennett protests with reason against this designation of his plan, by M. Grisolle, as an expectant system, inasmuch as the main feature of that system in France is the *diète absolue*, which, as every one knows, means giving neither food nor physic. Dr. Bennett gives food liberally and judiciously, but is sparing of physic. Certainly the difference is wide between the two.

My object in thus alluding to Dr. Bennett's treatment of pneumonia, is this; that, while treating the disease in accordance with his wishes, instances occurred to me so grave, that, perhaps from a want of the boldness or the temerity of experimenters, I considered myself not justified in trusting to restoratives alone. In casting about for some medical process which might prove reliable upon an emergency, and yet not debilitate, I was led to try the power of alkalies upon this disease. Other physicians may have adopted the same mode of treatment; indeed, I have since found that it was long ago used in Italy by Mas, but I do not know of any tables of cases so treated. From my short experience, I have formed a sanguine opinion about its utility. I do not propose it the one mode for all cases; for, I believe, the opinion is exploded, that there is one unchangeable form of treatment applicable to all varieties and stages of this disease. For instance, I combined with it the early use of restoratives, as advised by Dr. Bennett, in which I am a firm believer; and, further, I resorted to the application of blisters soon in the case, under the conviction that these epispastic remedies can be employed with much less danger of causing irritation, if used simultaneously with alkalies and diluents. Under this threefold plan, I have found the disease to give way without having occasion to use general, or with very few exceptions, local bleeding. Since 1865, I have had thirty hospital cases of pneumonia. Of these, two were admitted dying, one of them lived seventeen hours, the other thirty-six; these two cases could not be submitted to any form of treatment, except cordials. The remaining twenty-eight were treated upon the principles above stated, and they all recovered. The following is an abstract of the results.

The alkaline salt which I preferred, was the bicarbonate of potash; in the cases treated by Mas, the subcarbonate was employed. In all the cases it was given largely diluted in mucilaginous liquids, a measure, in my opinion, indispensable. The cases were persons of both sexes, and of various ages from 2 years up to 65. The quantity given varied from five grains or less in each dose, in very young children, up to half a drachm, in adults. It was seldom necessary to exceed this latter amount. The number of doses amounted to four, six, and sometimes eight, within twenty-four hours. The average quantity for an adult, was from two to three drachms per day, less for weakly persons and for those advanced in life. It was commenced directly that the case came under notice, and increased until the disease reached its acme, and was then gradually lessened as it gave way. It was continued for a short time after convalescence.

In 28 successive cases, we should expect to find examples of the disease in its different stages, and with the varieties which contingent circumstances impress upon it. Thus, in some, the signs of engorgement only existed at the time of admission; in others, hepatisation was found. They all exhibited the reliable marks of this disease, such as localised dulness, crepitation, or tubular breathing, rusty sputa in many instances, and labial herpes in about half. These local indications, combined with the general inflammatory organism, left the diagnosis indisputable. Six were cases of double pneumonia; in eight the left lung only was engaged, and the right lung in fourteen.

I watched closely the effects of the medicine in the above cases. In a few, it seemed to exercise no appreciable change in the symptoms, except a gradual return to convalescence; but in the majority, it left sensible evidence of its effects. Of these, the most striking was the alteration in the expectoration. After the alkaline salt had been taken for two

or three days, the viscid sputa became resolved, the fine bubbles became coarse and inflated, the rubiginous colour changed to white, and its tenacity of adhesion to the air-cells lessened, so that it was brought up easily. The cough, instead of being dry, hard, and irritating, became moist, soft, and expulsive. In this way alkalies act indirectly as sedatives, not specially allaying the cough, but abating the congestive state upon which cough depends.

The effect of the medicine is perhaps soonest observable in the tongue. The pneumonic tongue is well-known to present a dense white coat, which, as the disease becomes typhoid, lapses into the dry, brown, and fuliginous condition. Very soon after the potash was given, a change for the better was noticed. The pasty indurum seemed to dissolve away in an increased flow of saliva, the gums becoming slightly red and turgid, with a white line occasionally, and the whole surface became clean in a few days.

In the lungs, as determined by auscultation, a local improvement concurred with the fall of the pulse, and of the temperature. In my experience of pneumonia, the lung does not return to its normal state till some time after the febrile symptoms have been quite resolved.

In the urine, the change is also remarkable. It is well-known that, in pneumonia, the acid state of this excretion is at a maximum, reddening litmus rapidly and deeply. This acidity, after a variable period of use of the alkali, is altered to an alkaline, neutral, or slightly acid state. I regard this alkalinity of the urine as a kind of test of the medicine; not so decided, indeed, as is salivation from mercury, but sufficient both as an evidence that the medicine has been duly given, and as regulating its amount. This change seldom occurs before the third day, and I have found it to persist some days after the medicine has been discontinued. The other changes require to be carefully studied. The quantity is of course increased by the diluents. The high colour, indicating an excess of pigment due to intensely inflammatory condition, soon becomes pale.

When pain of the side existed, blisters, applied for four or six hours, proved valuable auxiliaries. I consider that the great suppuration produced by blisters, left on for twelve hours or more, is very prejudicial, from the exhaustion and pain which they cause. In lobular pneumonia, when very great bronchial oppression occurs, they are also very useful. This remedy has been decried by several authorities, and, amongst others, we find M. Louis (*clarum et venerabile nomen*) objecting to it. His distinguished pupil, M. Grisolle, in summing up the arguments, for and against, remains doubtful. I have satisfied myself that much of the danger apprehended from their early use is removed by the alkaline and diluent treatment. In none of the cases was strangury produced, neither did the urine at any time become albuminous from the absorption of cantharidine. In some cases, in which both the anterior and posterior surfaces of the lung were involved, blisters had to be applied to both, I have in no case as yet been disappointed in their effects.

As to restoratives, I have carried out fully Dr. Bennett's recommendations in commencing early with the use of good beef-tea and milk; the quantity of each varying from two to four pints or more in the day. It was seldom found necessary to give more wine than four, six, or eight ounces, except when the disease had passed into the advanced stages before admission, when stronger stimulants were required. In children, it was in most cases not administered.

As a rule, the earlier the stage of the disease, the more effective was the alkaline treatment. I have, however, employed it with advantage at very advanced periods, though the plastic state of the blood had become diminished. The only drawback to its use is a high state of gastric or intestinal irritation, complicating the case; but when vomiting or diarrhoea had subsided, I have used the potash with good effects.

The President of the Association, in his recent address, has observed that what is wanted in therapeutics is a combined series of observations upon the value of remedies. I offer this paper, with much deference, as a small contribution in that direction.

I have only to remark that there is a point of much importance in forming tables of the comparative values of modes of treatment in a given disease, and particularly in this very disease; and the inattention paid to it has led to serious errors, which vitiate all such computations—I mean the uncertain opinions about what constitutes convalescence. Some writers mark it as the time when general *malaise*, fever, and rapidity of the circulation have subsided. But experience testifies that the lung at that period is often very far indeed from being restored to its normal condition. Other writers, again, make the epoch of convalescence to depend upon the state of the appetite; thus M. Grisolle regards it as beginning when the patient can digest two potages *per diem*. The evil of such vagueness is, that authors, in classifying their patients by the duration of the case from rigor to convalescence, assume in reality different standards of reference, thus rendering the comparison of statistics

of various modes of treatment fallacious. Another period, equally fallible, is the time of return to occupation, which often varies with the indigence of the party. But the most uncertain and worthless of all standards is, the date of discharge from hospital. We know well that working men with families mostly leave hospital too soon, while persons without home-ties stay over long. Perhaps some of the difficulty may be met by marking two periods of convalescence, viz., incipient and complete—the incipient denoting the period when the fever has quite abated, and the march of the disease stopped—the complete, when the lung has quite returned to its pristine state, a period in different cases very variable in time.

Until, therefore, writers come to a definite agreement upon this point, tables of the duration of the disease under different modes of treatment are not to be depended on. I have myself, from time to time, employed nearly all the known modes of treating pneumonia; and I have never met with any which has afforded me such unvaried satisfaction as that which I have just described, and for which I solicit a patient trial from the profession.

In conclusion, our warmest thanks are due to Professor Bennett for his strenuous opposition to the exhausting systems of treating pneumonia formerly in use. It is but justice, however, to state that the leading physicians of the day have arrived at nearly the same conclusions by a different route, accounting for the great change in its active treatment upon the empirical theory, that we have passed into one of those cycles of asthenic type in which the use of the lancet is rarely allowable. This view has been ably supported by Professor Law, the President of the Section, to whose instructive lectures on diseases of the thorax, I and many others are deeply indebted. Dr. Bennett explains his practice on quite different principles, upon which I do not think it necessary to enter.

NOTE ON REGIONAL PALSY AND SPASM.

By J. HUGHLINGS JACKSON, M.D.,

Physician to the National Hospital for the Paralysed and the Epileptic; Assistant-Physician to the London Hospital; etc.

I FEEL much indebted to Dr. Bastian for drawing attention, in his very important paper in the JOURNAL for December 14th, to certain views I have put forward on Arterial Regions of the Brain. I have not, however, applied the speculation of spasm limited to the branches of the middle cerebral artery to the explanation of cases like the one he has related, but to cases of unilateral convulsion which might or might not be followed by temporary unilateral palsy.

I first thought (*London Hospital Reports*, vol. i, 1864) that, just as permanent starvation of nerve-tissue of the corpus striatum consequent on complete mechanical blocking of the middle cerebral artery led to permanent hemiplegia, so temporary contraction of the whole of the branches of this vessel might produce temporary disorder of the same muscular region, hemispasm. And I supposed that, when palsy followed the seizure, the spasm of the vessels had been complete enough or long enough continued to produce so great a break in the nutrition of nerve-tissue, that minutes, hours, or days, would be required for its restoration. I did not suppose that the contraction of the vessel was continued beyond the paroxysm. The speculation has undergone further developments; and I will briefly state how it chiefly stands at present. I may also refer to recent Hospital Reports in the JOURNAL, and to the number for September 22nd, 1866, p. 329. The apparent dogmatism in what follows is not real. I am bound to write very briefly, as I am at present publishing on the same subject elsewhere.

1. There is an unilateral spasm, the counterpart of the unilateral palsy which damage to the corpus striatum produces.

2. In both, the faulty internal region is the same.

3. In hemiplegia, nerve-tissue is destroyed. In hemispasm, nerve-tissue is simply unstable.

4. The hemiplegia, therefore, is permanent; the hemispasm is occasional.

5. The local disorderly expenditure of force may occur: (a), as the failure of the unstable part in a general arterial wave throughout the body. We see a semi-paralysed arm become spasmodically affected in a general emotional condition. (b). The unstable part may fail from local spasm; for, although the arterial system is an unit, it is no doubt an unit of units. In support of this second possible manner of failure, I have, I confess, very little to say that is sufficiently definite to be said briefly. If diseases are to be studied as departures from health, the point is to be studied as part of the much wider inquiry, What is the

share the arteries take in regulating nutrition and developing function?

The thing of most importance is the positive study of convulsive paroxysms, regardless of the vested rights of certain clinical entities; and this may be done independently of any theory. I admit that there are many difficulties. The chief apparent discrepancy is accounted for by Dr. Broadbent's valuable hypothesis on centres for unilateral and bilateral motion. (See *Med.-Chir. Rev.*, April 1866.)

NOTES OF A PECULIAR CASE OF EPILEPSY.

By WILLIAM T. GREENE, M.B.Dub., etc., Moira, co. Down.

ON the 29th of August last I was called in to see a young girl, 16 years of age, the daughter of a well-to-do tradesman, who, whilst dressing herself that morning, had suddenly fallen down in what the parents termed a "fit," and which, from the description they gave of it—viz., "a sharp cry at the moment of falling, convulsive movements of the limbs, foaming at the mouth, flushing of the face," and, finally, "recovery after some minutes without any recollection of what had taken place"—I concluded to have been an epileptic seizure; the more so, that the patient, a well-grown but anæmic girl, had for some time menstruated irregularly, and for the last two months not at all. I further ascertained that my patient's bowels were irregular, though not particularly so, and her appetite capricious; but she slept well, and complained of nothing except an occasional "dull feel," as she described it, at the back of her head.

Thinking it probable, from the girl's age (the menses had made their first appearance more than a year before), and the fact of this being the first attack of the kind she had ever had, that it might be due to the interruption of the catamenial flux, the result of the anæmic condition in which I found her, and too close confinement to the house, I ordered three grains of citrate of iron and quinine in water three times a-day, and some aperient pills to be taken occasionally. Her mother then took her to the sea-coast for change of air, and I did not see her again until the 16th of the ensuing November, when her father came for me. He stated that, after taking my medicine for some time, the girl had improved very much; so much so, that he was in hopes there would be no repetition of the attack; but that upon the previous evening (November 15th), whilst sitting at the piano, his daughter had suddenly uttered the too-well remembered cry, and had then fallen in a fit, which, however, had lasted much longer than the first.

Upon seeing the patient herself shortly afterwards, I found that she had grown exceedingly fat in the interval; so much so, that I thought, at first, her face must be swollen; but she had more colour and seemed livelier than when I first saw her in August. The mother informed me that, after taking the iron and quinine mixture for a couple of weeks, her daughter had menstruated twice, at an interval of three weeks, but that there had been no "change" since then; and that for some days previously to the second seizure the girl had complained of the "dull feeling" at the back of her head, of which I have already made mention as precursory of the first attack. Considering that the attacks were due to the derangement of the uterine system alone, I ordered regular exercise in the open air, and ten grains of bromide of potassium in an ounce of infusion of cinchona three times a-day. This she continued to take for two months with manifest benefit; the heavy bloated look gradually disappeared, the catamenia returned, the action of the bowels became regular, the appetite normal; and I congratulated myself upon her recovery, which I, not unnaturally, attributed to the influence of the bromide of potassium. One day, however, after the patient had been about two months under treatment, I called to see how she was getting on; and, after speaking with the mother for some time upon different subjects, she said, just as I was leaving the house, "By the bye, doctor, I always forgot to tell you that Kate" (her daughter) "was in the habit of taking 'flowers of sulphur' for her complexion; you know young people are so foolish." "Indeed," I exclaimed, "in what quantities, and for what length of time?" "Why, she tells me she took a teaspoonful every night for a considerable time, she cannot exactly remember for long before the first attack, and began it again soon after our return from the shore; that is, about a month before the second."

Here was food for reflection. Was this sulphur-taking at the bottom of that derangement of the system that eventuated in the epileptic seizures which I had attributed to the disordered state of the uterus and ovaries, due itself, in all probability, to the introduction into the blood of the large quantity of sulphur which my young patient had been taking for the improvement of her complexion? At any rate, as well as I could ascertain, the irregularity of the catamenia dated from the time at which