most immediate and complete relief, by removing a great deal of crude matter from the stomach, and inducing a change in the whole circulation; and even in the third, they were of much benefit, in combination with bleeding, purgatives, calomel, blisters, and the warm bath. Several highly eminent authors have expressed their unqualified disapprobation of emetics in apoplexy; but nevertheless I have often seen them most decidedly serviceable in that disorder, when it was connected with an overloaded or disordered stomach, by which the heart was oppressed through its sympathy with that organ,* as was the case in the three examples mentioned above. These observations, however, are not made entirely to show the efficacy of emetics, under such peculiar modifications of apoplexy; but are also intended to suggest, whether they might not be usefully administered in the highly congestive typhus, and similar complaints. In the commencement of every modification of infectious fever, particularly in those of a congestive character, the stomach is always affected, to say nothing of the liver; now as we know in the nettle-rash and other diseases, that a deranged state of that organ can powerfully oppress the heart, disorder the functions of the skin, and lead to great congestions, why may it not be intimately connected with the production of the phenomena of highly congestive fevers proceeding from contagion? If this be really the case, is it not very probable, from the facts already adduced, that early emetics would be beneficial in such affections? But these parts of pathology and practice must be left for others to investigate hereafter; for being highly important, they require to be settled, not by conjecture or analogical reasoning, but by observation and experience. These digressions however have kept me too long from the original subject.

* We are in possession of many facts, revealing an intimate and rapid intercourse between the stomach and the heart: from observation I am satisfied that certain substances taken in the former, sometimes either suspend or excessively depress the action of the latter. Some cases of this kind are fatal, and then the patients are usually supposed to die of apoplexy; but in most instances relief is obtained by spontaneous vomiting, and where that does not immediately take place, an emetic will generally soon induce recovery.

Even in chronic ophthalmia general venesection is frequently of more benefit than any other measure, and where the structure of the eye remains uninjured, it should be more commonly used than it is at present: but I must observe in this place, that when chronic ophthalmia is seated in the tunica adnata, and not the sequela of a previously acute inflammation, it is far more frequently symptomatic of some disease in the brain than has been supposed; and whenever it is thus a secondary affection of the cerebrum, it can only be removed by bleeding and other means, which remove the original and distant disorder. Yet chronic inflammation of the eyes themselves often arises from a gradual accumulation of blood in the lining of the under and upper eye-lids, which are thereby made to press upon, and to irritate the eyes into inflammation. In every case, therefore, of chronic ophthalmia, this membrane should be examined, by inverting the eye-lids a little with the fingers; and whenever it is found preternaturally distended with blood, scarifying it freely and repeatedly will generally be attended with the best effects. Small specks are apt to form upon the lucid cornea, in the progress of chronic ophthalmia, and so are small ulcers, which may easily be confounded, at first, with the former; but to prevent mistakes of this kind, a small ulcer may always be distinguished by its being indented in the middle, whereas a common speck is almost always prominent at that point. By having been mistaken for specks, I have known ulcers allowed to commit considerable ravages upon the struction of the eye. But if a solution of the nitrate of silver be opportunely applied, it usually soon heals ulcers of the cornea, and indeed often proves efficacious when they had existed for a considerable time; except when they are connected with irritations about the digestive organs, and then these must be removed by appropriate means before the ulcers of the cornea can be cured. It may finally be observed with respect to chronic ophthalmia, that the sulphureous waters of this country will frequently remove it, when every other measure had previously failed; and this is more especially the case when chronic ophthalmia is combined with the strumous temperament, a circumstance by no means uncommon.

TIC DOLOUREUX.

Boerhaave well knew, Dr. Johnson tells us in his biography, that the originals of distempers are often at a distance from their visible effects; and the justness of this observation may at once be illustrated by a very remarkable example. It has been supposed, that tic doloureux is primarily seated in the nerves of the face, and the able and ingenious Dr. Parry modified this the general hypothesis of the times, by placing the disease in the capillary vessels ramified upon the facial nerves. But, with every respect to the opinion of this distinguished individual, tic doloureux appears to me to be a complaint of the brain itself, to which the disorder in the face merely stands in the relation of an effect. This opinion has been impressed upon me by a careful examination of the cases which have fallen under my own eye, in the whole of which the affection of the face was preceded and attended by clear manifestations of cerebral disease, such as pain, giddiness, confusion, or some other uneasiness in the head, more or less disorder in the functions of some of the external senses, with symptoms of congestion, or of increased action in the vessels of the brain;—and sometimes the stomach and liver were simultaneously or sympathetically affected, a circumstance not uncommon in many diseases of the sensorium. That tic doloureux should have its origin in the brain, will not appear at all surprising to those who have directed their attention to the pathology of that organ; since in several of the disorders to which it is liable, what might seem, at first sight, the most urgent symptom, is seated at a distance from its source. Indeed this happens in other diseases, as may be instanced in certain forms of hepatitis, where the pain is most severe at the top of the shoulder, and in certain affections of the hip-joint, where it is most severe in the knee.

Considering how very little had hitherto been effected by treating tic doloureux as a mere facial disease, and being forcibly struck with the appearances that indicated its seat to be in the brain, I resolved to try, under favourable circumstances the power of decided bleeding and purging. The first two

cases in which this treatment was pursued, had not existed six weeks, and both of them yielded to it without much resistance. It was afterwards adopted in three others, of as recent a date, with the same result; and it was successful in another of much longer standing, by being followed up with calomel and opium. As in most other diseases of the brain, it has been usual with me in this to combine general with local blood-letting, and not only to continue the use of purgatives for some time, but also to apply blisters occasionally, either to the scalp or to the nape of the neck. From one case which I have myself seen, and from two others of which I have heard, it seems to me most probable, that the depletory practice will not generally succeed, in those examples of tic doloureux which have continued some years; although, when judiciously employed, and succeeded either by an alterative course, or by small and repeated doses of arsenic, it will perhaps afford the fairest chance. Why the chronic may be very different from the recent tic doloureux, a little reflection will readily reveal. In the commencement, this disease merely consists in disordered action, but when it has continued a long time, that disordered action may have produced derangement of structure, or at least such a confirmed dilatation, or other morbid condition in the cerebral vessels as cannot be removed. It is certain that persons afflicted with tic doloureux may live many years, and even sometimes have the appearance of good general health; but it will, I believe, be found that they most frequently die suddenly at last from oppression of the brain, a circumstance which tends to strengthen the opinion here advanced, as to the original seat of this disorder.

In tic doloureux, however, little advantage is to be expected from any plan of cure, unless the strictest attention be paid to the diet, which should be spare, and exceedingly simple. In chronic diseases it is very common for patients to complain, that they derive no permanent advantage from any thing; for in fact as soon as ever the disease is lessened or removed, they are constantly liable to renew it, either by generating too much blood, or by creating some irritation, from irregularities in the diet. It is not enough that having once made an im-

pression on the symptoms of a chronic disorder, we should rest content with a sort of truce, in which it is apt to make frequent and at last formidable returns; but we should endeavour, by the most peremptory enforcement of a proper regimen, and by maintaining a regular action on the bowels, wholly to dislodge the lurking mischief (56). After all, tic doloureux is probably one of those disorders which finally will be found under the common influence of some narcotic (57); and in two solitary instances of long standing, which had resisted the ordinary treatment, considerable respites were obtained by small doses of the extract of stramonium.

There is a peculiar affection of the brain, which is nearly allied to tic doloureux; but instead of fixing on the face, the pain, which most attracts attention, is seated in one of the fingers, and most frequently under the nail. So very severe is this pain, that some patients whom I have attended could not be convinced but that the disease was solely confined to the finger, though they were afflicted with giddiness, and what they called nervous head-aches, noise in the ears, occasional dimness of sight, some degree of deafness, and other alarming symptoms. There is seldom redness or much swelling perceptible on the affected finger, but it is generally sore to the touch, and the pain at times greatly abates, and again becomes urgent. This disorder requires a treatment similar to that of tic doloureux, and local applications are of no utility. There is one case of this kind on record, in which amputation of part of the finger afforded no relief; and another has been reported to me on good authority, where the operation

(56) We are inclined to think very favourably of the use of emetics in this disease—a practice, the credit of suggesting which is due to our distinguished countryman, Dr. Physick. We have recently tried the practice, and found that in every instance, full vomiting, if it did not completely remove, at least greatly alleviated the sufferings of the patient.

(57) From recent and ample experience, we conceive it to be satisfactorily established, that the carbonate of iron is the remedy which exerts the greatest influence over this intractable disorder. The practice originated with Dr. Hutchinson, an English surgeon, and is justly entitled to be considered as one of the most important improvements in modern practice. According to this gentleman the iron is to be given in doses of from half a drachm to a drachm, two or three times a day. The practice has been tried with success in this country.

likewise completely failed. Nor will this appear surprising when we consider, that the pain of the finger is dependent upon a distant derangement, and therefore can only be removed by removing the cause from which it proceeds.

Periodical head-aches are also closely related in their pathology to the two diseases just mentioned, for, like them, they most frequently arise from congestion or disturbed action in the vessels of the brain, and are therefore remediable upon similar principles. From an extensive experience I am authorised to affirm, that they may in general be speedily removed by one decisive blood-letting, with a few brisk purgatives, succeeded by the cautious exhibition of Dr. Fowler's solution of arsenic; a preparation which should always be given immediately after a light meal, otherwise it will be apt to disagree with the stomach. In two instances only, I have known the arsenic fail, after depletion, in the periodical head-ache, and both being complicated with hepatic disorder, they were afterwards cured by calomel and opium.

CALOMEL AND OPIUM.

Much having been said about calomel and opium in the inflammatory diseases, perhaps it may be satisfactory to inquire before concluding this section of the work, who may be entitled to the merit of introducing this combination, as a *general* remedy for inflammatory affections. It is well known that quicksilver was a component part of an unguent, which Rhazes used and recommended in cutaneous disorders; that the preparations of this mineral were long afterwards most successfully applied to the cure of syphilis; and that, more recently, their efficacy was established in hepatitis, first by Eastern, and afterwards by European, practitioners. Mercury, then, was first successfully employed in three different kinds of inflammatory diseases, and though with the most signal advantage in two of them, no person as yet had inferred its *general* utility in inflammation; the honour of that discovery having been first reserved for the late Dr. Robert Hamilton of Lynn Regis. This author candidly acknowledges, that, at the close of the year 1764, a naval surgeon who had

served eight years in the East Indies, informed him, that the established method of curing hepatitis in that country was by mercury, after venesection, and the exhibition of a gentle purgative. Some patients falling ill of that disorder at Lynn Regis, soon after the arrival of his friend, Dr. Hamilton tried the method of cure by mercury, and it proved successful. He used the ointment in very few instances, and gave no preparation internally but calomel, to which, however, he shortly found it necessary to add opium, in order to relieve pain, which answered that purpose most effectually. This success led him into the following train of reasoning. The efficacy of mercury in ophthalmia had been long established, and its specific virtue in every symptomatic venereal inflammation: its liberal use in the modern way of inoculation had also shown its power of abating inflammation; while its success over the hepatitis in India, and in the late instances of that disease which had passed under his own eye, were fresh proofs of its excellence. Reflecting on these things he was led to consider, that the general cause, be what it may, of an inflammatory diathesis, must be the same, whether the inflammation is seated in the meninges, pleura, lungs, liver, diaphragm, or any other internal membranous part; and, therefore, the circumstance of locality could make little or no alteration in the general intention of cure. From these premises the following deduction, according to his view, naturally arose;—that as mercury had been so successful an agent in the several instances above mentioned, it was reasonable, from analogy, to conclude that it would prove equally so in every kind of inflammatory disease;—wherefore he was determined to give it a fair trial in every one, as opportunities offered for that purpose. Peripneumony was the first disease which fell under his care, after this resolution was made; and he informs us, that the success of calomel and opium in it filled him with astonishment. Afterwards he found this combination equally efficacious in pleurisies, in phrenitis, and paraphrenitis; in inflammations of the intestines and other parts within the abdomen, and in child-bed fevers, with highly inflammatory symptoms. Having succeeded in curing local inflammatory diseases by this practice, he tells us, that his experiments were

next directed to what he calls a malady of general inflammation, the acute rheumatism; that he had the satisfaction to see this also give way most readily to it, and that himself as well as some of his friends repeatedly experienced, in their own persons, the most salutary effect from it, when attacked by that distressing disease the gout. It appears likewise, that he saw equal advantage result from the calomel and opium, in inflammations arising from external injury, either in the head, thorax, or abdomen, as he experienced in those arising from an internal cause.

Having named the disorders in which his first experiments proved successful, he proceeds to give a detail of his general mode of practice since that period in all inflammatory distempers; from which it is evident, that he did not entirely trust to calomel and opium, their administration being premised by evacuations. Blood was directed to be taken away in the beginning of the disease, in quantity proportioned to the violence of the inflammatory symptoms, and to the age and constitution of the patient. The bowels were next ordered to be opened, either by a clyster, or more commonly, by a gentle purgative. After which, a composition, consisting of from one to five grain doses of calomel, and from a quarter to a whole grain of opium, was administered every six, eight, or twelve hours, according to the age and strength of the patient, and to the degree of inflammation; a plentiful dilution of barley water, or any other weak, tepid beverage, having been at the same time strictly enjoined. The patient was generally very much relieved, after having taken three or four doses of this medicine in the course of twenty-four hours; and the distemper commonly gave way in twenty-four hours more, and soon terminated afterwards. But if relief was not obtained within the first twenty-four hours, and the high inflammatory symptoms remained with little or no abatement, which the anthor affirms was rarely the case, he ordered more blood to be abstracted; and not only exhibited the mercurial composition more frequently, but continued it until the distemper resolved, by sweating, purging, or ptyalism. If this curative mode was employed early in the disease, the patient's recovery was soon accomplished, whatever might be the opera-

tion of the mercury, whether it acted on the skin, bowels, or salivary glands. But if employed late, it was attended with more uncertainty, though recovery most commonly took place the soonest when the salivary glands were affected. If the fever was violent, accompanied with a dry, contracted, arid skin, emetic tartar, and sometimes camphor, was added. And the author states, that he never found any medicine, either in a simple or aggregate state, produce so speedy and effectual a relaxation of the skin, and a plentiful perspiration, as a composition of calomel, opium, emetic tartar, and camphor, which also has the advantage of increasing the evacuations by stool and urine. He appears to have frequently directed blisters to be applied, especially at an advanced period of any visceral inflammation, conceiving them to be very powerful auxiliaries to the internal method of cure. After the distemper was evidently on the decline, he seems to have been rather partial to the exhibition of bark, particularly in the acute rheumatism, but always took care to keep the bowels soluble.

It had been alleged by some, says Dr. Robert Hamilton, that, as other powerful medicines had frequently been joined to the calomel, the cure might, with greater probability, have depended upon them than the mercury. He candidly acknowledges, that he always deemed opium of the most essential service, by relieving pain; and allows that he thought the emetic tartar and camphor sometimes contributed to the cure. But he pointedly remarks, that he had very often seen cases where emetic tartar, camphor, and opium, assisted by saline remedies, had been employed without the smallest relief in inflammatory diseases, which, nevertheless, gave way in a short time, on calomel being added. And he states, as a fact well known at Lynn Regis, that calomel and opium had very often succeeded without any other addition, from the first exhibition of mercury there to the then present time, in inflammatory diseases: and that even with the additions above named, many inflammatory diseases showed no amendment until the salivary glands were affected, a circumstance which was generally regarded, by himself and other practitioners, as the happiest presage of recovery. He concludes

his summary account, by declaring that the subject of it is not the hasty result of a few months' practice, but that it is founded on the solid basis of nearly eighteen years' successful experience, to which many of the principal practitioners of the town where he resided, could bear the most ample testimony.

The above is an imperfect abridgment of the paper originally published by Dr. Robert Hamilton,* which, notwithstanding some of its defects, deserves to be engraven in letters of gold, on account of its great practical application and utility. The defects alluded to are, that both the lancet and purgatives, at the outset, appear to have been used too sparingly by the author; and that the doses of calomel recommended were either too small, or too seldom repeated. At least, if my experience has not greatly deceived me, his method of cure, if strictly followed, would often be inefficient in highly acute cases, which obviously require, by reason of their rapid progress, a more powerful and prompt application of remedies. Still, however, it must be confessed, that his principle of the successive use of bleeding, of purging, and of calomel and opium deserves to be deeply regarded and highly admired; and so far as he advanced in the treatment of common membranous inflammation, that, until some greater discovery be made, perhaps little more can be done than to modify the application of his measures. That many an invaluable discovery in physic has not been duly appreciated during the life of the author, and that this was the case in respect to the one adverted to here, can hardly be doubted by any conversant in medical literature. Accident often appears to produce some fact capable of great extension, and although repeatedly observed by many, yet it can only be generalized by a mind accustomed to contemplate impressions; as the falling of an apple is said to have led Newton to the discovery of the laws by which the heavenly bodies are regulated. It is only right to acknowledge that some enlightened authors, and also some respected friends whom I could name, inferred

* See, in Medical Commentaries, for the years 1783—84, vol. ix. p. 191, a Letter from Dr. Robert Hamilton, Physician at Lynn Regis, to Dr. Duncan, giving an account of a successful method of treating Inflammatory Diseases, by Mercury and Opium.