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The Morphia Habit

OSCAR JENNINGS

SECOND EDITION

J. D. Rolleston
15. 3. 32

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CURE OF THE MORPHIA HABIT

BY THE SAME AUTHOR.

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ON THE CURE OF THE MORPHIA HABIT

WITHOUT SUFFERING

(*PHYSIOLOGICAL DEMORPHINISATION*)

With a Note on

THE PHYSIOLOGICAL METHOD OF RELIEVING THE CRAVING FOR DRINK

BY

OSCAR JENNINGS, M.D. (PARIS), M.R.C.S. (ENG.)

FELLOW OF THE ROYAL MEDICO-CHIRURGICAL SOCIETY

SECOND EDITION, REVISED AND ENLARGED

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TO

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IS

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BY

THE WRITER

PREFACE TO THE SECOND EDITION

THE treatment described in the present edition is essentially the same as that recommended ten years ago, being always based on the relief of the craving, by the prevention or the alleviation of its several component factors.

In order, however, to make it clearer to the reader, several changes have been thought advisable. Some chapters have been entirely re-written and others interverted in their order. Besides which a certain number of illustrative cases have been added, to show the difficulty as well as the results of treatment.

Another point to which I would call attention is the modification of the title by the addition of the words 'without suffering,' which is warranted

by the constant progressive decrease of discomfort which has been the result of an ever-increasing attention to the natural indications of treatment.

Lastly, the adoption in the sub-title of the word 'Physiological,' which I use myself now for the first time, but which is currently employed by foreign writers in describing my methods. Pichon first, and after him Guimbail, Chambard, and Rodet, have applied this term to the treatment of the craving by heart tonics which is really only one of the elements of my method. The other means employed being equally 'physiological'*—that is, answering to definite natural indications of treatment—whilst retaining the expression I shall henceforth extend it to my whole method.

O. J.

PARIS,
September 1, 1901.

* The report of the American Association for the Study and Cure of Inebriety and Narcotic Addiction, amongst other favourable endorsements of my methods, says: 'The observations, it is said, of Drs. Jennings and Ball, of Paris, upon the sphygmographic tracings of the pulse of habitués we believe have laid the *physiological* basis for a rational system of medication.'

PREFACE TO THE FIRST EDITION

My object in writing the following pages has been to compile a guide for practitioners as well as patients, so as to give them an idea of what is required to escape from the thraldom of morphia.

Those who have never before attempted, and failed, to wean themselves from the fatal stimulant, will perhaps think the conditions laid down tiresomely and disagreeably exacting, clashing and interfering, as they do, with all their habits and impulses. There are some, however, who have hitherto been unsuccessful only for want of proper direction, but whose constant hope by day, and dream by night, is to recover their liberty. They have been treating themselves unwisely, but under the impression that they were doing all they could.

These will be only too glad to comply with the conditions, and consider recovery cheap at the cost of such compliance.

Those who might be disposed to consider their cases as utterly beyond hope may be told that instances of recovery are upon record after an addiction of twenty years, and even when the limbs have been distended to twice their size with dropsical fluid. I have, on the other hand, seen recovery in a case of twelve years' standing, where the body was covered with wounds resulting from abscesses, and where the patient was in so extreme a degree of emaciation that his friends never expected to see him leave the establishment where he went to be treated.

But if we are prepared to preach hope to everyone addicted to morphine who is not compelled to the practice by some painful and incurable disease, the conviction of the possibility of ultimate recovery should not encourage those who are as yet upon the threshold to push any further into this realm of moral darkness. Although it is quite true that in some cases, and for a short period of

time, the absorption of a certain quantity of morphia is followed by a vital and intellectual exuberance, the daily euphoria is succeeded, even at the beginning, by a period of depression, and often of irritability, which affords an indication as to the kind of price that will have to be paid for the indulgence later. And again, although some habitués may go for long years without being apparently any the worse for the habit, in other cases the condition known as *morphinism* quickly supervenes, and the patient soon breaks down, physically, mentally, or morally.

Those who are taking morphia in ignorance of its danger, or under the impression that they are justified by some loose medical prescription in so doing, should remember that the habit is a most insidious one; and if they want to know exactly how they stand, they have only to attempt to do without it. Should any discomfort be experienced from its cessation, the practice must be given up at once; for if there is not already addiction, it is dangerously threatening.

I think it was Montaigne who, notwithstanding

his general disbelief in medicine, advised the sick to bestow their confidence upon those who have suffered in the same way as themselves. In accordance with this idea, then, I have only to add, in recommendation of the plan set forth in this little volume: *Experto crede.*

PARIS,
June, 1890.

CURE OF THE MORPHIA HABIT WITHOUT SUFFERING

CHAPTER I

In 1890 I published a little book on the cure of the morphia habit, giving an account of different means of treatment that had enabled me to wean a considerable number of habitués from their addiction with a minimum of distress and suffering.

It may seem an invidious thing to say, but I have no hesitation in declaring that before this there was no rational treatment of the morphia craving founded upon therapeutic indications. There was, in fact, no treatment of the craving at all, which is tantamount to saying that there was no systematic treatment of the morphia habit.

The so-called 'methods' described by contem-

porary writers consisted of suppressing the morphia suddenly, slowly, or semi-brusquely, but failure was always the final result. A certain number of those who could be persuaded to give up their liberty, when they did not die suddenly (Clifford Allbutt), or commit suicide (Levenstein), were, it is true, sometimes temporarily cured after indescribable sufferings. But the same ignorance, or rather indifference, concerning the means of alleviating the craving, extending to the means of preventing the discomforts that are liable to occur to those who are left to their own devices after the suppression, in nine cases out of ten the temporary suppression was followed by a speedy relapse.

I will say at once, for I have long ceased to make any secret of the matter, that my first observations were made in my own case. The only treatments then known being the 'methods' just spoken of, I endeavoured to analyse and to dissociate the different factors of the miserable wretchedness known as the 'morphia craving,' and to discover in them some indication of treatment. It soon became evident that to call an

attempt at suppression—whether slowly or suddenly—a 'method' was an absurdity. The time element is merely one of the conditions of treatment, and the real question—that upon which the whole management of the suppression turns—is that of the possibility of attenuating and rendering bearable the craving. Analysing, as I have said, this craving, and seeking for what in another case would be called 'indications of treatment,' I found it was not, as it had hitherto been allowed, an untreatable entity, but that it might be looked upon as the resultant of a number of component distresses, and capable of being split up into factors susceptible of entire or partial relief.

I remarked also that with the same doses and the same length of addiction, the discomforts felt by different patients differed greatly in severity, and that the craving was always increased at times by a certain number of errors and imprudences the morphia habitué always commits; and that it could be prevented, on the other hand, in a remarkable degree by certain dietetic and hygienic observances, and remedied by a number of

means of treatment that result clearly from unmistakable therapeutic indications.

It will be seen further on that every one of the treatments that I have proposed during the last fifteen years, as a consequence of these observations, has since been endorsed by other writers, and that the means I pointed out as resulting from therapeutic indications are now generally adopted by physicians treating this class of cases.

Some writers have even gone so far as to adopt one of my means of treatment, and to magnify its importance into that of an adequate method by itself. Pichon thus credits me with the invention of the 'Physiological Method,' which consists of the administration of heart tonics alone.

Erlenmeyer, too, has made a method of the administration of bicarbonate of soda, given to neutralise hyperacidity, and which he terms 'chemical demorphinisation.' But, unlike Pichon, he appropriates the discovery to himself, although I have been calling attention to this treatment, as will be seen further on, ever since my first publications, and had almost become tired of writing on

the subject, before it had occurred to him. The Turkish bath has also been proposed as a complete treatment lately, but for the present I shall content myself with mentioning the fact.

It is scarcely necessary to point out that if each of these plans, which alleviate one factor of the discomfort, has by itself been found efficacious as a cure in the hands of others, the three combined must give a greater certainty of success.

The most important factors of the craving, as will be seen further on, being heart depression, hyperacidity, and nervous irritability, the relief of either of these conditions may be sufficient help to enable a patient who might otherwise be unsuccessful, to get well; but there will be a much better chance of recovery without suffering by the application simultaneously of the means that remedy each of these conditions, and so prevent or alleviate the craving in all its factors. It is like the old fable of the bundle of sticks which could not be broken as a whole, but which was easily disposed of when they were taken one by one.

How far suffering can be prevented by the judicious application of the principles I have laid down depends upon the care that is taken, not only in punctually and exactly carrying out the treatment, but also in guarding against such imprudences or accidents as exaggerate craving.

I can, however, now affirm that I have, during the last ten years, had abundant opportunity of verifying my earlier observations, and I can assert, without fear of contradiction, that when the line of conduct I indicate is followed intelligently, the craving can often be entirely prevented, and in every case attenuated to such an extent that it is as nothing in comparison with any other treatment,* and no longer constitutes a difficulty to

* As an example of the 'failure' of my treatment I will mention the case of a young man sent to me because a complete result could not be obtained by the attending practitioner. The patient was taking sparteine, Vichy water and hot-air baths, and was therefore supposed to be following my system, but could not get beyond the rectal injection period. The only result had been the suppression of the syringe. I found upon questioning him that, although he knew that the whole treatment was intended to diminish acidity, he had not thought there was any objection to gorg-

anyone who is really desirous of giving up the addiction.

An extensive experience has shown me, too, that, in most of the cases that have failed to get well under my care, it has been no imperious craving, but a mere morbid impulse, that has prompted them to relapse and I do not hesitate to assert that, provided the patient will allow himself to be protected against temptation, the morphia habit may be given up without positive suffering, and the amount of restlessness and discomfort reduced to that experienced upon the cessation of any other stimulant.

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ing at meals, swilling beer in the intervals, and emptying the larder at night of whatever it contained. He looked upon this régime as the best way of recuperating his strength. Whether it was self-indulgence, or merely a pretext for taking morphine, I do not know; but as he would not change his mode of life I, of course, declined to have anything to do with his treatment.

CHAPTER II*

BEFORE undertaking the cure of a morphia habitué, it stands to reason that we should first ascertain whether the attempt can be made without danger. Personally I do not think that the thing is feasible whenever the habit has been acquired for the relief of angina pectoris. All that can be done, and even this is very difficult, is to restrict in a prudent measure the daily ration. In 1882 I was consulted by a lady for angina pectoris, evidently of a purely functional type. I prescribed nitrite of amyl, and it acted most satisfactorily, the attacks being invariably arrested by its use. She left Paris, and they entirely disappeared. In 1888 she was imprudent enough to resort to morphia during the

* The three following chapters are reproduced, with few additions, from my 'Cure of the Morphia Habit,' 1890.

prolonged illness of one of her children, in order to keep herself going at night, when she was fatigued with watching. At the end of eight months she confessed to me what she had been doing, and implored me to get her out of the trouble. Starting from four grains a day, we went as fast as she could manage and that the state of her heart, which had again become irritable, would allow. Sparteine and digitalis were of no avail, and nitrite of amyl had entirely lost its effect. The fluid extract of coca was useful for a time, but soon lost its action also. Striving to overcome the habit for the sake of her husband and children, and neglecting several warnings, she was seized with a syncope whilst out shopping one day, which lasted two hours, and which, according to the physician who was called to attend her, was of a very grave character. As the attacks became more and more frequent, I proposed a consultation with another specialist, who advised a combination of iodide and bromide, and gave an unfavourable prognosis, as far as recovery from the morphia habit was concerned. The prescription turned out a failure, but the

prognosis was right, and the lady has since relapsed into the misuse of morphia.

A case is recorded in Professor Ball's interesting lectures in which the cessation of morphia was followed by death. Thanks to sparteine the habit had been overcome without much difficulty (although under restraint), and the patient, supposed to be out of danger, had left off the heart tonic a few days previously. Curiously enough, I had myself taken some tracings of the pulse a few months before, and had been alarmed at the effect upon the circulation of a small dose of trinitrine. The amount given—two drops of a one per cent. solution—had lowered the tension to an extreme degree (see Fig. 1), and in relating the case (the *Lancet*, June, 1887), I wrote: 'The hypodicrotism made me feel a little uneasy, although the patient, who had been in a state of restlessness and enervation, was quite comfortable, and became quite cheerful.' Subsequent events showed that my uneasiness was not unfounded.

It would be equally unsafe to suppress morphia

in a case of valvular disease, and it is scarcely worth while making an attempt in most incurable painful affections. I was consulted by a judge who, notwithstanding the short duration of the habit (three years), and the moderate amount of morphia taken (three grains), was already in an advanced state of cachexia. In his own opinion

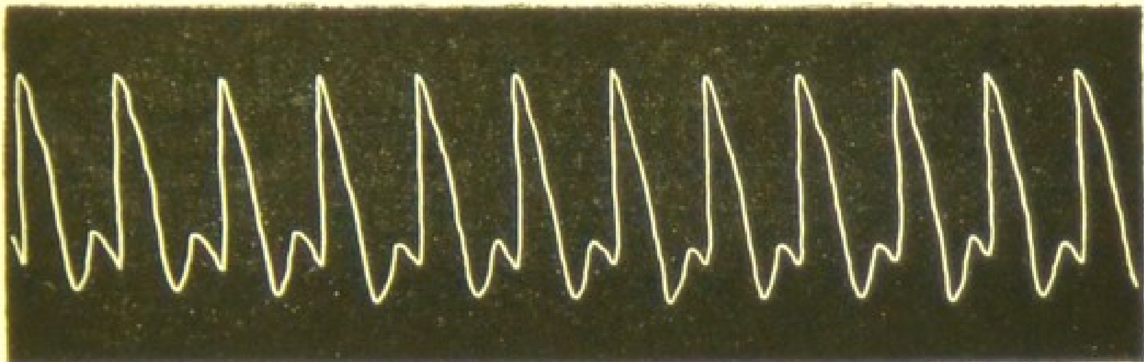

FIG. I.—EFFECT OF TRINITRINE IN A CASE WHERE DEATH ULTIMATELY RESULTED FROM CARDIAC FAILURE.

he was suffering from rheumatism, but in reality his malady was locomotor ataxy. After decreasing a little he had such a terrible attack of pain that he was obliged to return to the original amount. He wrote to me to excuse his weakness, saying that he had not sufficient strength of mind to go on, but that he was ashamed to come and tell me so himself. As a matter of fact, however, he

had only given way when his sufferings were past endurance, and it was certainly better to return to morphia than to commit suicide, as I have known a patient similarly situated to do.*

Supposing, however, that the candidate for treatment presents no bar to recovery, the first condition of success is that he be earnestly and personally desirous of escaping from the thraldom.

I have very little confidence in those who have only yielded to the pressure of friends or parents. Not only do they lack the first condition, but they generally make a difficulty about the second, which is to place themselves unreservedly in the hands of their medical attendants, with the understanding that they are to exact nothing and to do nothing during the course of the treatment that has not

* I know, too, of a case, a very brilliant journalist, who began life by becoming a confirmed alcoholic, taking afterwards to morphine, and finally to cocaine. Fortunately, the effect of the cocaine was so serious that he was obliged to abandon it ; and some time afterwards he gave up the morphia also. He at once relapsed into alcohol, which had been taken only with moderation after he had become addicted to morphia. He has now returned to morphia, and keeps straight in every other way.

been prescribed or agreed upon. With one single exception, I have never seen a good result from treatments left in the patients' own hands.

This leads to the question of restraint. Most specialists, especially in Germany and France, are advocates of it, and for my own part I should not hesitate to recommend this measure in some exceptional cases. I should never do so, however, unless thoroughly convinced that the previous treatment had been directed by someone really competent in the matter. Some otherwise sensible physicians still declare that the morphia habit is mere perversity, and that the patient can throw away syringe and solution if he only choose to make a firm resolution; others are equally dogmatical in declaring it entirely incurable, and in maintaining that any time and trouble expended in this direction are entirely thrown away. It is scarcely necessary to say that I should not take into account any previous treatment carried out under such auspices.

The chief reason against restraint, to my mind, is that our real aim is not so much the temporary

suppression of the morphia, as the cure of the desire for it, and the best way of effecting this is by the re-education of the dormant will.

The patient should, however, I think, as a rule, remove himself from the medium in which he has been accustomed to play the tyrant, and submit with resignation to be rationed and supervised; but he should have the power of putting an end to his privation at any moment. I advise him to submit, not to restraint, but to restriction. He is to be at liberty to do what he will, but whilst under treatment he is to render an account of what he does.

I do not mean by this that he is to carry about an unlimited supply of morphia, and to take it at discretion. On the contrary, he should have none, the doctor giving each dose himself, but the patient should know and feel certain that he can have more by asking for it, and be free to leave the house whenever he chooses.

Besides the reason given against compulsory cure, except in the one case of hysterical opposition, there is another of greater cogency, which is

that confinement seldom secures even the immediate end in view. A morphia habitué may, with proper guidance, give up his habit of his own free will, but so strange is his mental constitution, that after he has consented, or perhaps begged, to be placed under restraint, he will, if his request is acceded to, at once endeavour to render restraint unavailing. He is a hysterical subject, whose proper feeling may be aroused and restored, but with whom coercion only develops the morbid symptoms in a higher degree. If watched in an asylum, like a condemned prisoner suspected of wishing to commit suicide, no doubt the suppression can always be obtained ; but even those who are constantly in contact with morphinists hesitate to insist upon a too rigorous surveillance with patients who voluntarily place themselves under treatment, and who can say very plausibly that they would not have been likely to give up their liberty had they not the strongest possible intention of getting well.

In sanatoria and 'homes,' whether with restraint or not, there are, as a rule, too many

people under treatment to allow of individual attention, and this association seldom brings about an emulation for good. A patient whose analysis of her own case is to be found in a former essay, says: 'I cannot conclude these notes without declaring that, to unite all the chances of curing a morphia habitué, we ought as far as possible to separate him from those suffering in the same manner. I have learned at my own expense the wisdom of this measure.' Such is also my opinion, for I have known several patients in special institutions tempted back into morphia by their perverted associates, just as they were on the brink of success, and this even in a model institution like Schönberg.

I have dwelt at some length upon this question of surroundings, because the success of the treatment depends entirely upon making a good beginning. It is of no use to commence under unfavourable circumstances, in the belief that the beginning being comparatively easy, it will be time enough to look about for a suitable place as soon as the reduction becomes irksome. To suc-

ceed, the necessary conditions must be observed from the very first, and no secondary considerations allowed to hinder them. If the patient's means do not allow of carrying out the programme, that is another thing, but no deviation from it should be tolerated for mere convenience, or for unnecessary economy.

Two courses, then, remain open—treatment at home, and treatment in a special establishment. If treated in his own house, he must consent to remain a prisoner in it, going out in the company of a reliable person, and not receiving any letters or parcels that have not been opened in the presence of his attendants. A change of surroundings, however, is preferable, as morphia habitués are generally far more reasonable with strangers than with members of their own family, whom they tyrannize from force of habit. The difficulty is to find a suitable 'home' where only a few patients of the kind are taken, and the fewer the better.

The last condition, and one which is, perhaps, even more important than any, is the adoption of a proper method, not only of administering the

decreasing doses of morphia, but also of general conduct. Morphia habitués are essentially creatures of impulse, and nothing is more distasteful to them than to order their lives methodically and soberly. But it is absolutely necessary that they should do so. The real difficulty in the cure of the morphia habit is not to arrange the progression in such a manner as to permit of the habit being given up without suffering, but to convince the patient that if the treatment is to be successful, it is only on condition of the greatest docility in matters of detail. Although, as I have just said, nothing is so distasteful to morphia patients as method and order, these are the absolute conditions of success, and a great step is already gained when the patient has acquired this conviction.

Many patients will consent at once to the programme of reduction as regards quantity, but when it comes to fixing the hours of administration, they will declare that no fixed rules can be adopted in their particular cases, because their requirements vary with circumstances; they may

be entitled to a dose of morphia when they do not need it; and, on the other hand, be in want of the drug when they are not entitled to it. The reason is plausible, but it is essential, notwithstanding, to insist upon regular hours, as method is paramount, and laxity of treatment at first invariably leads to ultimate irregularity.

It may also be rejoined that, with the new methodical mode of living in other respects which it is necessary to adopt, the requirements as regards morphia will not vary afterwards as they did before. The patient must also understand that, as regards diet, he should take light digestible meals like any other convalescent at regular hours, and resist the morbid impulse that will often prompt him to make an extravagant meal at some unreasonable time—often in the middle of the night—washing down lobster salad or *paté de foie gras* with copious libations of brandy or dry champagne. There must be regularity as regards medicine; regularity with respect to meals; and last, but not least, regularity also with respect to repose.

Whether sleep come at first or not, the light should be extinguished as soon as the last dose of the morphia has been taken, and reading in bed strictly forbidden. The pretext for reading in bed is the difficulty of sleeping, but in the morphia habit, even more than under ordinary circumstances, it is the habit of reading in bed that aggravates the insomnia. Whether the first few nights remain sleepless or not, the patient must try to woo back sleep by restoring night to its proper purpose, that of repose. It stands to reason, and I shall refer to this principle more fully further on, that if the morphia is expended in providing the intellectual energy necessary to enable the reading of a book to be enjoyed during the night, its effect in other directions is lost, and a larger quantity than otherwise need be is required to maintain a state of comfort. Those who know nothing about morphia will often suggest to a patient in a state of want to take a book and read. But morphia patients will know I am right when I say that such a recommendation is an absurdity. For them to be able

to read it is necessary, not only to have the organs of vision and the intellectual centre, but also that organs and centre be bathed with a sufficiently strong solution of morphia. Reading in bed, then, although one of our patients' chief pleasures, must be given up, in order to make the morphia go as far as possible.

Some habitués acquiesce in all these requirements, but with the mental reservation of doing what they please. Such patients are often very misleading, and more than one physician has been led to believe that some particular remedy has been of the greatest service, when, in truth, the patient has only been pretending, in order to get through the farce of treatment as soon as possible. Strange as it may seem, it is none the less true that a morphia patient will often pretend that he has been cured, rather than own to the doctor that he has cheated, or that he has been guilty of an imprudence that has thrown him back. Hence we hear, from time to time, of the extraordinary powers of some medicine, such as castoreum, avena sativa, or cannabis indica, in enabling, by the aid

of a few doses, the use of morphia to be given up without difficulty.

Hence, also, from a statistical point of view, the circumspection with which the statements of cured habitués should be taken. A gentleman who had taken morphia without interruption for six years declared solemnly that he was cured by me some years ago, and one of the stanchest advocates of my plan was a member of the diplomatic corps whom I have not seen since I was supposed to have pulled him through, but who continued the habit to my certain knowledge.

It must be remembered that morphia habitués are a class of patients *sui generis*. With all the sympathy I feel for them, I cannot conceal the fact that they are 'prevaricators' by impulse, and sometimes also through interest. They will often pretend to be cured, merely from a morbid fear of hurting the feelings of the doctor who has unsuccessfully treated them; but I have known instances in which the comedy of treatment has been gone through to recover a situation or to conclude a marriage, in the latter case even after

an addiction of seven years. A Paris physician who treated all his hysterical cases by hypodermic injections of morphia has been under the impression that he could arrest the disease so created by hypnotism and suggestion, and each case reported by him ends with the mention: 'The patient states she has entirely given up the injections.' I must confess that no declaration on the part of a hysterical morphinomaniac would have much weight with me, and I think that a little more scepticism as regards their statements might often lead to very opposite conclusions.

Although the patients under our care are undergoing a voluntary reduction by a strange contradiction in harmony with their hysterical temperament, they are quite unable to resist the impulse to cheat if an opportunity for so doing occurs. It is, indeed, only this peculiar state of mind that makes the semi-constraint I advocate at all logical; otherwise it would be more rational either to deprive morphia habitués of liberty entirely, or to treat them like any other class of patients, with perfect confidence. When the

reduction is becoming irksome, the patient will often prefer to resort to some subterfuge in order to obtain the desired respite rather than admit honestly that he cannot, or will not, continue to decrease. He will pretend, for instance, that he has spilled part of his allowance by overturning the bottle, or he will declare that he can feel that it is not of proper strength. In such a juncture argument is useless as well as undignified; but if the pretext is allowed and the extra amount obtained, the following day the patient is less likely than before to be satisfied with the legitimate ration, and henceforth the result is compromised.

There is another class with whom failure is almost certain, but for different reasons. This is the argumentative habitué, who knows more about morphia than any doctor living. Generally morose and suspicious, he often declares, although there is little fear of his putting his threat into execution, that if he is unsuccessful in his treatment he will commit suicide.

One day I received a pressing appeal from a gentleman of this class who had been at the

Maison de St. Jean de Dieu for about a week. 'I am constantly thinking about morphia, and my eyes are always on the clock, which never seemed to go so slowly. Please come to my rescue.' I started off in the greatest haste, to find that he had just gone to take his coffee in a neighbouring restaurant. In the course of a few minutes he returned, and appeared not a little astonished at my annoyance in finding that he had been out. He maintained that his absence had been necessitated by the rules of the house, which did not allow of coffee after meals. He admitted that it had been agreed between us that he was not to cross the threshold of the institution on any pretext whatever, and had I not discovered that he had done so he would not have told me. Morphine takers are accustomed to these mental reservations. But he argued, that his absence occurring just after he had taken an injection, he was in want of no morphia at the time, and therefore did not run any risk. Here was a man who confessed that he was constantly thinking of morphia, and who declared his intention of committing suicide should he fail

to cure himself of the habit, and yet I could not bring him to understand that it was better for him to make coffee in his own room, or even to go without it entirely for a month or two, rather than to run into a temptation which he had never before been able to withstand. I endeavoured to prove to him that the man who complains of the want of some little indulgence is not in the frame of mind requisite for successful treatment, for if he realises at its proper price the inestimable happiness of the escape from morphia, he ought to be convinced that recovery is cheaply purchased at the cost of a short temporary seclusion, coupled with some trifling interference with personal habits. I pointed out also that morphia patients seldom or never place themselves under treatment until they have proved by repeated trials that they are incapable of curing themselves, and it is only logical, therefore, that from the moment they do ask us to direct their treatment, they should cease to exercise any further disturbing influence. But all to no effect. The patient I speak of was argumentative and disagreeable all the time he was

under my care. A large abscess having formed and requiring incision, he refused to have the slight operation performed because he did not think it was ripe for the knife, maintaining, moreover, that the patient was the best judge in such matters. The truth was that it afforded him an opportunity for injecting the solution of cocaine that he obtained against my orders and pretended to apply as a lotion. I completely failed to make him realise that he should have sufficient self-denial to give up any petty indulgence that might compromise his cure, and unity of purpose enough to order his whole life to the one end of avoiding temptation. Finding one day that he had gone out by himself on the important business of obtaining a solution of morphia, of which I was not to be told, we had a final difference of opinion, which led to my retirement from the case.

Morphine patients may be divided into several classes. First, there are those who are really desirous of getting well.

It might be supposed that the mere fact of a person consenting to commence treatment would

be *primâ facie* evidence of a real desire to be cured, and that when the reduction is prematurely stopped, it is good proof of the failure of the treatment. This is, however, a false conclusion; for there are a great many patients who commence treatment under pressure from relatives, or in alarm at certain menacing symptoms; and when, as is nearly always the case, a slight reduction has led to a disappearance of these symptoms, or the restraint to which they are necessarily subjected begins to become irksome, the first resolutions, or rather good intentions, are thrown to the wind, and the patient resumes his liberty of action. He has not given up the treatment because of any suffering, or even discomfort, but because it has turned out that he has not sufficient unity of purpose to carry out what he was momentarily persuaded or frightened into undertaking.

Besides the two classes of patients—those who would get well if the craving could be moderated sufficiently or entirely, and those who do not intend to do so—there is an intermediate class: those who do want to get well, and who have no real craving

that prevents, but who suffer from a hysterical neuromimetic craving. As in the case of all painful hysterical manifestations, it cannot always be affirmed that there is no suffering because there ought to be none, and because there is no reason for any. It is in these cases that great tact is necessary, and that experience is more especially requisite. Such patients should never know how much morphia they are taking, or what other agents are being administered; and as the symptoms, although really distressing, are entirely ideal, ideal treatment must be adopted. In the case of one lady, as soon as she knew she had been reduced to a small dose of morphia, the most distressing scenes occurred; but, after a temporary return to larger doses, a reduction was carried on rapidly without her knowledge, and she had given up the morphia entirely for three weeks before she had any suspicion that she was near the end.

CHAPTER III

In writing these pages it is not my intention to offer a systematic treatise upon the morphia habit, its causes and consequences, but simply to make known in all its details a plan of treatment that I have found successful as often as the patients have placed themselves unreservedly in my hands, and observed loyally all the necessary conditions. Although I have some hope that this little pamphlet may be of service to my fellow practitioners, its primary purpose is to give my own patients a full explanation of the method upon which we are working, and a complete programme of what I take to be conditions of success.

A certain number of morphia habitués are argumentative, and fond of excusing their frequent infractions of obedience by declaring that something was said which had authorized them in so

doing. Being, moreover, of bad faith themselves, the verbal utterances and warnings of their medical advisers are accepted by them as specious and plausible sophisms, which they may not be able to combat, but to which they do not feel obliged to give implicit credit. By writing and printing this kind of Code, the patients to whom I allude will see that what I tell them is not invented on the spur of the moment to meet the exigencies of their particular cases, but that all my recommendations are part and parcel of a regular plan of treatment.

It is no part of my task to enter into the symptoms of chronic morphia poisoning; but, as my treatment is based upon a certain conception of the nature of the morphia craving, it will be as well to give at once my theory of its mechanism.

'I suppose,' I said, 'that the want of special stimulation, felt as the morphia craving-yearning, reduces itself physiologically to the requirement of a peculiar mode of molecular motion.' The condition of ordinary ennui which has been described

as 'a sense of tedium in activity,' having its source in a want of mental occupation, or, in other words, the want of molecular change in certain cerebral centres, is intensified into the distress that results from 'the representation of a future in which such cravings will never be satisfied.' This 'dissatisfaction,' by inaction of the nervous system, is associated with the ento-peripheral craving resulting from the diminished impulse to those organs, and more especially the heart, which subserve nerve activity. Each recurrence of the sensation is probably heightened by auto-suggestion of the means of satisfaction, and by the abeyance of the controlling power of the will over the morbid automatism of the lower centres, which are polarized, as it were, into fixed yearning for the accustomed stimulant. From this tendency to an accustomed molecular motion on the one hand, and the enforced inaction from want of the necessary stimulant on the other, arises a condition of cellular unrest and fatigue, which has its exact counterpart in the external habitus of the patient.

The feeling of intimate restlessness is accom-

panied by an impossibility for the individual to remain at repose; but if he seeks relief by walking about, he is soon forced by fatigue to sit or lie down on a couch or easy-chair, when no sooner has a suitable position been discovered, than the renewed restlessness compels him to be up and moving.

It is this imperious tendency to movement which shows itself also in involuntary startings, etc., that furnished me with one of my first indications of treatment—a treatment which did me good service when I had nothing better, but which is interesting now only as showing the evolution of my method. Energy resulting from the accustomed pharmaco-dynamic stimulus is required to give full satisfaction to the morphia habitué, but motion in all its modes is a sedative to the craving, providing always that it be not carried to fatigue.

Starting from this point, I treated my first case by the application of different physical stimulations, such as faradization, massage, dry friction, heat, galvanism, etc., towards the end of the progressive reduction, and I found that I was able

to effect sufficient breaks in the monotony of the yearning to enable the patient to wait for his decreasing doses with patience. What is generally so profoundly discouraging to a morphia patient is the certainty that once the craving is felt, it will go on with increasing distress until the morphia is administered. In the case I allude to, as the doses became less frequent and less considerable, the periods of relative comfort became, as is always the case, shorter and shorter, and a strong desire for the morphia was felt hours before the time appointed for the injection. Although other medicines had been taken in the course of the reduction, at the time the physical stimulation plan was tried, the only drugs used were bromide, valerianate of ammonia, and bicarbonate of soda. The result of the experiment was entirely successful. The patient who had taken morphia for five years, and cocaine for a year and a half, latterly in doses of over twenty grains a day of each, and who had failed, moreover, previously on two occasions on the very brink of success, managed to come triumphantly through the ordeal. Besides

the different stimulations and medicines mentioned, he also made great use of the hammock, in which he would lie exposing his limbs for hours together to the broiling sun.

It was upon this theory of the substitution of another stimulus to the brain cells for the accustomed one that I was led to use trinitrine, and afterwards nitrite of amyl. Although these agents have a powerful action on the heart, it was not on this account that I selected them, and, indeed, if a medicine could be found exercising a similar action upon the bloodvessels, without stimulating the heart, it would be preferable. What the heart requires is a tonic rather than a stimulant, the action of which is always followed by a corresponding depression.

The second indication of treatment is to be found in the state of the heart, which participates in the general vital stoppage, giving rise, by its sluggish action, to some of the most distressing symptoms. The sphygmographic tracings, given further on, make this very clear; and, although the plateau of morphia abstinence is not especial to

this condition, being met with in other psychoses, such as melancholia, neurasthenia, hysteria, and dipsomania, it is in a morphia case, as, indeed, in the others mentioned, proof positive of the necessity of a heart tonic. These tracings were the outcome of an inquiry undertaken conjointly with my late friend and teacher Professor Ball. Some physicians, more particularly those who have never used it, are sceptical as to the value of the sphygmograph; but I am sure that it has often afforded me indications for treatment which would otherwise have escaped me. In dipsomania, the unhappy subjects are too often supposed to resort to drink in consequence of a mere morbid impulse; but if the sphygmograph were used, it would often be found that the impulse has a physical basis in the shape of heart failure, and that the 'sinking' feeling pleaded in extenuation is not a pretext only.

The following tracing, which affords a good example of this condition, was taken from a lady whose menstrual period was generally associated with a fit of drinking. She was brought to me,

after the failure of numerous treatments, in the hope that I would counsel her confinement in a 'home.' The tracing suggested the trial of a heart tonic, and I advised a mixture of coca, hydrastis canadensis, and digitalis, and, of course, total abstinence. I was able to follow her case for eight months, and, although on two occasions (for an ulcerated sore throat, and for bronchitis,

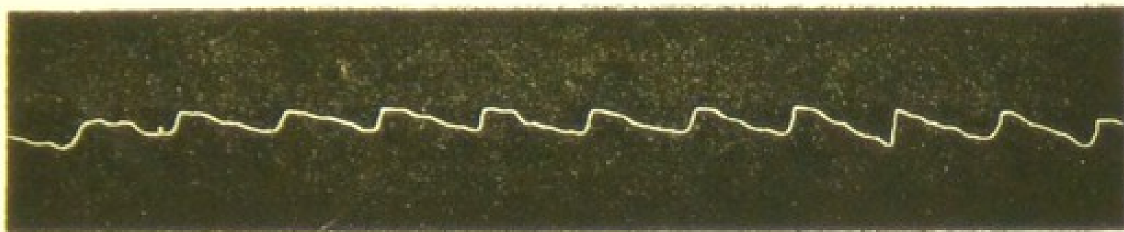

FIG. 2.—HEART WEAKNESS CAUSING CRAVING FOR ALCOHOL.

following influenza) port wine was given, and the bottle allowed experimentally to remain at her discretion, there has been no relapse. Such a result would be satisfactory in ordinary alcoholism; in dipsomania it is remarkable.

Another lady, whose complaint has been variously designated under the names of hysteria, neurasthenia, hypochondriasis, monomania with fixed idea, and whose chief symptom consists of

feeling and thinking herself ill, and, in fact, of being ill, showed a similar tracing.

Here, however, there was no malaise about the heart, but one can quite understand how an insufficient circulation of blood may give rise to a constant 'dissatisfaction of the nervous centres,' and hence to a craving for sympathy and relief, too readily put down to morbid fancy.

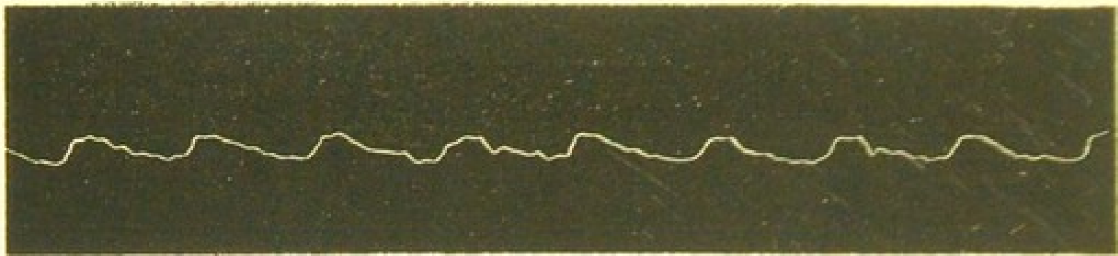

FIG. 3.—HEART WEAKNESS ASSOCIATED WITH MORBID SENSATIONS.

In a case of morphia habit the plateau affords, then, not only the best evidence of suffering, but it also indicates one means of relief. The necessity of promoting a healthy function of all the other organs, although less evident, is scarcely less important.

Just as in disease of the liver or kidneys secondary difficulties may arise in the lungs or heart, so the overtaxing of the digestive organs

may upset the restored balance, and render the treatment ineffective. Hence the necessity for the habitué to allow himself to be directed, even in the most trifling details.

The most important functional disturbance as regards the craving is the hypersecretion of acid in the stomach during suppression, which obviously suggests the administration of bicarbonate of soda. This is discussed in another chapter.

To sum up, the want of morphia makes itself *felt* chiefly in three directions—(1) a condition of restlessness, and sometimes of pain, depending upon the want of an artificial stimulus to the brain cells, which has become, as it were, so indispensable to function that it almost represents vital force ; (2) by a failure of the heart's action and a sluggishness of the circulation, caused by the want of the natural nervous influx to the heart, and also by the lessening of the *vis a fronte* through the suspension of the chemico-vital processes in the tissues ; (3) an excessive secretion of acid in the stomach. Given at the proper time, the suitable means are quite competent

to allay all craving. But for the cure of the morphia habit something more is necessary. It requires that for a sufficient space of time the patient be protected from the temptation which exists as long as he is not cured of exceeding in morphia, not because there is any really painful craving for it, but on account of the irresistible impulse that prompts even the best-intentioned to succumb to its fascination. It requires that during a certain time he so order his life that the decreasing doses of morphia suffice to prevent discomfort, an end that will not be attained if the patient commit any indiscretion in the shape of errors of diet or overfatigue, etc.

CHAPTER IV

THESE preliminaries settled, it will be as well to understand clearly what is proposed to be done. What is the extent of the ordeal ?—for, if no worse, it is always an ordeal of patience and regularity—and what are the properties of the vital elixir from which the votary is to be weaned ? '*Me Hercle, non sedat,*' exclaimed the celebrated founder of the Brunonian school. The statement contained in this exclamation, by which Brown stands a self-acknowledged opium-eater, is neither entirely right nor yet entirely wrong. Morphia is a sedative, even to the habitué, but not only or principally a sedative. Its predominating action is that of a stimulant, and this contradiction is not more flagrant than those which obtain in all its other effects, both of abuse and of abstinence. Whatever symptom may be the result of the habit, the opposite also is observed. And whatever may

happen when its administration is withheld may also be the result of an excessive dose. The word stimulant, however, but feebly expresses the action of morphia in the organisms of its tributaries. I have often heard those who are imperfectly acquainted with its effects compare the slavery to that of alcohol and tobacco, and relate instances —sometimes their own cases—to show that, as regards the latter, it only requires a firm resolution to break at once with the habit. But irritable and restless as a man accustomed to other stimulants may feel for a few days after they have been given up, it is nothing to compare with the vital stoppage resulting from the sudden or too rapid cessation of morphia. It is no exaggeration to say that the unfortunate victims of the habit are wholly and absolutely dependent upon their accustomed stimulant; so much so that it has almost become a condition of existence. The heart will scarcely beat without it, the brain only thinks by it, and digestion is entirely dependent upon it. In a word, morphia to its unfortunate slaves is the synonym of vital force.

It might seem, then, that there is but little chance of escape from a thraldom so complete, or that, at the very least, it must be necessary to employ restraint. Such was the practical conclusion of a discussion at one of the medical societies in London, and such is the opinion, as I have already said, of the leading alienists. A physician, quoted by Dr. Mattison, expresses himself as follows: 'Let him (the patient) quit it short, absolute and entirely. If he have the will power, trust him; if he cheats, lock him up, put a Hercules over him as a nurse.' As it is absolutely certain that no one whose addiction is of sufficient standing to warrant the expression 'morphia habitué' could leave it off suddenly by an effort of the will, the Herculean nurse would become a necessity. Here is a picture of the treatment by the same authority: 'All substitutes are simply a prolongation of the agony he must go through. . . . The patient who quits morphia after a long-established habit suffers from insomnia, diarrhœa, nausea, vomiting, achings all over, and debility to such a degree that it is a marvel how he lives. . . .

All this suffering will last from five to ten days. No medicine will do any good ; the stomach rejects everything, even a mouthful of cold water. . . . At last, after several centuries of torture, little by little, and without medicine or substitutes, nature accomplishes the cure. This terrible treatment, I am sure, is not only the best, but the only safe one to cure, and secure the patient from relapse.'

Dr. Mattison very properly protests against this 'brutal, barbarous, and inhuman plan of treatment,' and shows how mistaken are these statements. The most important objection, to my mind, is that, dreadful as are the tortures inflicted, they do not, as a matter of fact, afford any safeguard against a relapse. Of nine cases of Obersteiner, 'perhaps only one—at most two,' says he, 'may be considered as examples of complete permanent recovery.'

A glance at Levinstein's book will prove that most of his patients relapsed also, notwithstanding the unwarrantable tortures to which they were subjected.

The best safeguard against relapse is really the

re-education of the will effected by gradual progression, and for this reason I prefer, as I have already said, the system of voluntary retreat and supervision, but without coercion.

In my early cases, the object aimed at being the suppression of morphia, the patients were allowed too much latitude in other respects. Nearly every morphia habitué is sufficiently well acquainted with the literature of the subject to be more than a match in discussion for anyone who has not a special knowledge of the subject. So it was that, when I first began to make the treatment of the morphia habit a special study, although I had the very best reasons for thinking that certain practices were imprudent, my patients were always able to quote some acknowledged authority in favour of their course of conduct. One maintained that he was helped by large doses of alcohol—an error, notwithstanding the books that endorse this opinion; for if the immediate effect is stimulating, the subsequent reaction makes a larger dose of morphia necessary to combat the depression of the heart and vaso-

motors. Another would insist upon having chloral at discretion. A third, without appetite as a rule, would be seized with a sudden fit of boulimia, and eat a heavy, indigestible meal in the middle of the night, afterwards suffering from dyspepsia, for which the proper treatment would be an emetic, but for which a morphia habitué always exacts an extra dose of morphia. A young lawyer, who had been getting on capitally, took it into his head that he could go faster with cocaine, and having, against my wish, procured a solution, began to inject it. After a few days the effect upon his health and intelligence was most unsatisfactory, and he had every appearance of a man in the depressive stage of general paralysis. As he refused to follow my advice, and to give up the cocaine, I declined to continue the responsibility of the treatment, and left him to his own devices. In the course of a fortnight he was reduced to such a state of mental and physical prostration that he was frightened at it himself, and asked me to resume the reins of government. After a short period of good con-

duct he insisted, at the suggestion of a medical man—also under my treatment in the same institution — upon taking bromidia at discretion, and very nearly killed himself with an overdose. A second suspension of medical relations led to a final surrender at discretion, and henceforth things went smoothly. At the very last moment an attack of gastralgia very nearly compromised the result, but, fortunately, it was dissipated by the action of a blister, and the much dreaded insomnia of the last night being prevented by the hot-air bath, the patient, an habitué of ten years' standing, was ultimately cured.

Having been able to speak more certainly and authoritatively, my later patients have been more reasonable, and when the treatment has moderated the craving to a bearable extent, those who have really wished to get well have, as long as they have remained under my care, followed the reduction agreed upon, with but occasional moments of weakness.

CHAPTER V

THE three preceding chapters have been almost textually reproduced from my 'Cure of the Morphia Habit' of 1890, and from these, and from the passages which are quoted further on, it is evident that every element of the treatment I employ at present had been already used by me at that date.

I call attention to this, for although the greater number of writers on this question have fully recognised my claims in this matter, certain practitioners, as I have said before, have found it more convenient to take my methods without acknowledgment than to devise treatments of their own, and have even gone so far as to claim the invention of these treatments for themselves.

This has been the case for the bicarbonate of soda treatment, the importance of which will be

seen further on, and also for the use of the Turkish bath, which an irregular practitioner is also exploiting as his own idea.

Believing as I do that my method is really what it has been termed, the *physiological* one, the necessity of establishing clearly my priority as regards these means of treatment must serve as an excuse for the repetition which the description of them as applied at present renders unavoidable. With these remarks, I pass on to the consideration of my actual mode of treatment.

When the morphia is associated with some other addiction, the first thing is to suppress the other stimulant, whatever it may be. If it be alcohol or cocaine, there is no difficulty worth speaking of in so doing; indeed, the quantity of morphia taken becomes more satisfying, being no longer antidoted, as it were, in a certain degree by the other stimulants as when they are taken. A medical man in London who consulted me by letter was astonished when I told him he could give up the cocaine without trouble, having been accustomed to look upon this as the most difficult part of his

addiction. He wrote shortly after to say that he had not experienced the slightest difficulty in carrying out my instructions. A gentleman, who afterwards came under my care, had commenced treatment with a London practitioner at the time when he was taking 8 grains of morphia and an immense quantity of whisky, besides brandy, 4 grammes of albumin representing the result of the kidney irritation. The doctor offered to allow him extra whisky if he would give up the morphia, a plan which would probably have resulted in delirium tremens. Fortunately he recognised his danger, and shortly afterwards came to Paris. All alcoholic stimulants were stopped in ten days, and six weeks later there was not a trace of albumin.

As regards the rate of reduction, I have always been a partisan of gradual progression; but the actual time necessary for the cure of any given case depends entirely upon the thoroughness with which the craving can be prevented by the means adopted. Starting from the fact that it is possible, without any other treatment whatever, to

wean a person of the morphia habit without his knowledge by a sufficiently slow progressive reduction, it is evident the slower the reduction, the less distressing is likely to be the craving. The plan I have adopted is to proceed as fast as possible, but *as slowly as is necessary, to effect a cure without distress.* If there were no other means of relieving the craving, the treatment would resolve itself then into a suppression sufficiently gradual for each patient, but this is no longer the case. When the patient is perfectly docile, allowing his mode of life to be so arranged that all increasing causes of the craving are eliminated, the residual craving is reduced to its simplest expression, and can be so alleviated by the means I use, that suppression may sometimes be obtained in ten days or a fortnight.

It is desirable first to bring about a change as soon as possible in the mode of administration of the morphia. If this can be effected earlier in the treatment, so much the better, but if not there should be a gradual substitution of rectal for hypodermic injections from the moment the

patient is reduced to 2 grains by the skin. Two grains would seem to be the vital requirement. Above 2 grains morphine can be found in the urine; below this amount it seems to be entirely consumed. It is not, as a rule, easy to get below this figure by direct progression without discomfort: here, therefore, a subterfuge must be adopted, and from this point downwards twice as much given by the rectum as is suppressed by the skin.

In consequence of this, the patient who has commenced the substitutive rectal injections at 2 grains hypodermically will be taking 4 grains by the rectum when the hypodermics are suppressed. But this is in no sense whatever a relapse. The great point to be accomplished is renunciation of the syringe, to wean the patient from his accustomed *stimulant*.

Hypodermic injections of morphia give energy and 'go,' and it is for this reason that the syringe is resorted to on the slightest pretext. It is the exact equivalent of brandy-nipping. For the person who has been accustomed to hypodermic

injections, the effect of rectal injections is quite different. There is no sudden or sensible stimulation and recovery of energy, but in its place an even sedation. This sedative effect, inasmuch as the dose is larger, compensates largely for the want of the syringe; but it is not in the same way stimulating, and it does not give rise afterwards to the same degree of craving. It is, moreover, an inconvenient thing to inject morphia by the rectum; the patient will do so to prevent suffering from the effects of hypodermic suppression, but it is without the fascination which leads to the constant use of the syringe. He is content to be satisfied with what is really required to prevent discomfort, and has ceased to be the subject of morphia *intemperance.*

There is usually no difficulty whatever during this period—at any rate, less so than towards the end of the first period—except with those who are victims of the 'mania of the syringe,' where the trouble is not to give up the morphia so much as to renounce the morbid pleasure of injecting. There are patients who would use anything rather

than diminish the number or volume of the injections. I have known them experiment with every drug that can be given in a liquid form, quite reckless as to the possible consequences. One gentleman treated by me injected pure hydrate of amylene, and followed it up with a few drops of nitrite of amyl. Another for whom I ordered $\frac{1}{5}$ grain doses of sparteine repeated the injections until he felt his heart contracting painfully, a sensation which naturally caused him alarm, mingled, however, with a fearful feeling of pleasure. Such aberrations seem almost incomprehensible, and, as far as sparteine is concerned, the case I have mentioned is unique, at any rate in my experience. When cocaine is used, it frequently happens that the injections are continued until they are followed by a feeling of impending death, and yet no sooner has the sensation passed off than a horrible fascination leads to a repetition of the dose, and the patient will go on injecting until he positively does not dare to risk another drop.

With the exception of these syringe maniacs, I

have never had any difficulty during the second period, and most patients are agreeably surprised at the facility with which they leave off the hypodermic injections.

It is now that the different means of preventing and remedying the craving that would otherwise result from continued decrease of rectal injection must be resorted to.*

* I taper off the morphia as fast as is possible, but, as I say elsewhere, as slowly as is necessary for each case. During the period of rectal substitution there should be no craving whatever, but when the hypodermic injections are finished, and the rectal injections have to be diminished, the craving, if untreated, is proportional to the rapidity of suppression. One patient, thanks to my means of preventing and relieving it, may get through this period in a few days; others will require the same number of weeks, and when the last fraction of a grain of morphia is reached, I sometimes render the transition more easy still by allowing for a few days decreasing doses of Duquesnel's solution of meco-narceine, a preparation of opium in which the meco-narceine alkaloids remain after elimination of morphia, codeine, and all the others. This makes the last jump free from the discomfort that there might otherwise have been, for there is very little addiction and no craving that cannot be relieved. After a few days, to enable all desire for morphia to disappear, it is easily stopped. I have, like many French specialists, also tried at this time an alkaloid obtained from

The want of morphia shows itself by certain symptoms which, as I have said, are natural indications of the treatment required. It should be borne in mind that when giving up morphia, it is a question of giving up not an habitual sedative, but principally a stimulant, and a stimulant of such transcendent power* that the vital collapse which results from its suppression far exceeds anything that could result from the privation of any other stimulant.

By gradual reduction and change from the more stimulating hypodermic to the sedative rectal injections, the collapse that would have resulted from sudden hypodermic suppression

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aconite, known as napelline. Once or twice it seemed to be useful, but fuller experience has not confirmed what I first hoped from it. It is, however, harmless, and very slightly toxic; but it costs ten francs a gramme, and is very difficult to obtain.

* Some years ago I treated a patient at Sainte Anne—a girl who walked from Brussels to Paris through the snow because she had not the money to pay for the train. During her journey she lived upon what bread she could purchase for two or three sous a day, being entirely kept up by frequent injections of morphia.

has been avoided; but if there were nothing now to be done beyond progressive reduction of the morphia, as is the case outside of my treatment, the final suppression, unless spread over a long time, would still give rise to a great deal of discomfort. Observation, however, shows that the suppression of morphia, which amounts practically to the suppression of a fictitious vital force,

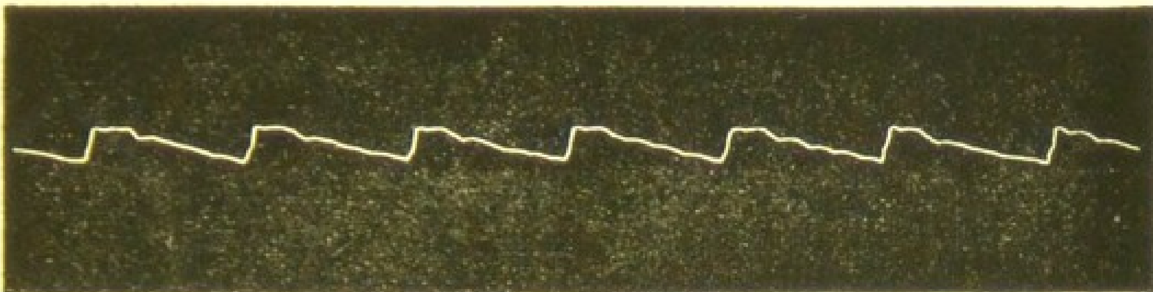

FIG. 4.—PULSE OF MORPHIA HABITUÉ IN A STATE OF ABSTINENCE.

gives rise to general functional depressions and metabolic perversions, and these disturbances serve as our guide to treatment.

The heart is nearly always affected in its functions, and the sphygmographic tracing shows a sluggishness that is only too eloquent as regards discomfort. This constitutes my first therapeutic indication.

The above tracing from a former communication to the Academy of Medicine shows the pulse of a patient who is in want of his dose of morphia.

Tracings 2 and 3 are practically identical, but

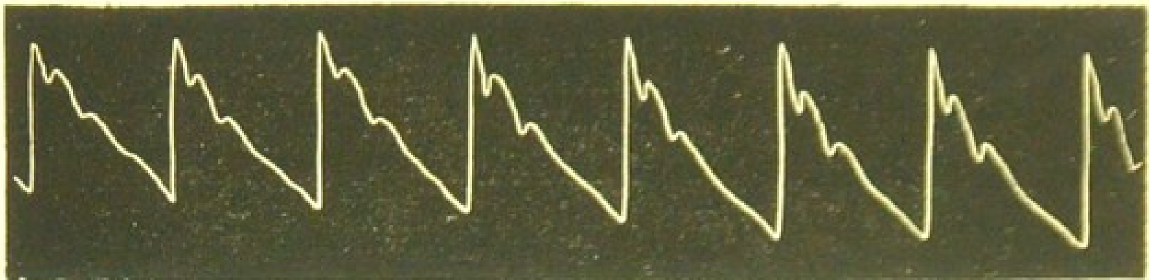

FIG. 5.—PULSE RESTORED BY MORPHIA.

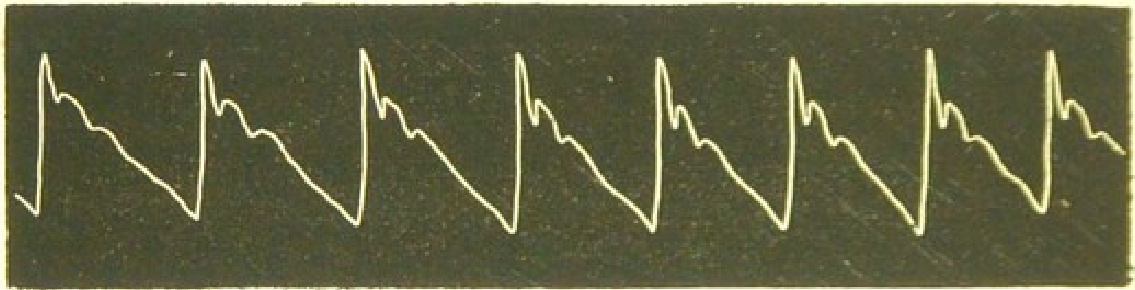

FIG. 6.—PULSE RESTORED BY SPARTEINE.

whilst the first is the effect of a dose of morphia, the second shows the effect of an injection of sparteine.

Heart-tonics form, then, my first means of preventing the craving. The first of the three tracings

shows a peculiar plateau caused by the want of cardiac impulsion, together with a resistance to the passage of blood in the vessels. A hypodermic injection given at this time re-establishes the normal state of the circulation, as is shown in the second tracing, taken from the same patient as the first at an interval of a few minutes. It was the study of these tracings that suggested the use of cardiac tonics and stimulants as substitutes for the morphia; and in so far as the heart is concerned, the third tracing shows how completely they can replace it.

As is the case for each of the means of treatment I have proposed, the utility of heart tonics has been endorsed by every subsequent French observer. I shall content myself with one quotation only:

'The pulse of the morphia habitué,' says Dr. Pichon,* 'does not afford to the finger any important indication . . . but there is a registering apparatus, the sphygmograph, which compensates for this insufficiency as regards delicacy of touch,

* 'Du Morphinisme.' Paris: O. Doin, 1890.

and which analyses the slightest arterial anomalies. It is in this manner that the experiments to which we refer, and which we had the good fortune of witnessing, were made. . . . These researches were made by Dr. O. Jennings, attached to the laboratory of Professor Ball, upon the numerous morphia habitués who were attending the clinique at the time. . . . Before arriving at a definite result, Dr. Jennings took a series of tracings from patients in different stages of morphinism—state of want, state of satisfaction, intermediary condition, normal condition.' Dr. Pichon then gives the conclusions of the communication presented by Professor Ball and myself at the Academy of Medicine, and adds: 'Nous avons contrôlé à plusieurs reprises ces savantes recherches. Nous avons pris un très grand nombre de tracés, et nous sommes arrivé aux mêmes résultats.' He then points out that the sphygmographic examination of the pulse is, as I have always taught, the best way of telling whether a patient is honest or not in carrying out the prescribed reduction. If the plateau is not obtained, when the patient ought to

be in a state of want, there need be no hesitation —he takes morphia secretly. 'This discovery has been the pivot,' he continues, 'of the *physiological treatment*, which appears to have given' (as we shall see at the end of the chapter) 'very good results.' 'After numerous trials, Dr. O. Jennings found that the sphygmographic tracings, after the use of sparteine and trinitrine, gave the same results as an injection of morphine. The problem was solved physiologically and clinically. It (the treatment) often gave before us excellent results. . . . Most interesting practical consequences result from these physiological discoveries, both as regards diagnosis and treatment.' Further on, after passing in review the different treatments that have been advocated, Dr. Pichon concludes: 'We should prefer the physiological treatment of Jennings, based upon the action of sparteine and trinitrine. . . . We have seen that these two therapeutic agents replace absolutely the circulatory action of the morphine euphoria, and overcome the state of want by causing the disappearance of the plateau.'

Although the administration of heart tonics has been described under my name in most of the monographs since Pichon as the 'physiological method' of treating the habit, I have myself never claimed more from heart tonics than the power of relieving the craving in so far as it is caused by failure of the heart. This is something, I may even say a good deal, but it is not all, and there are generally other factors of the craving that are equally important. Before passing to them I would say that in my first memoir I used sparteine because it was easy to demonstrate to the students, when I was attached to the clinique of Ste. Anne, the recovery of the heart; but in my more recent publications I expressed the opinion that it was better to avoid hypodermic injections of any kind in convalescing habitués, and that a more even strengthening could be obtained by digitalis given in the usual way.

Another reason that led me to give up the hypodermic injection of sparteine, was that in many instances the chief element of difficulty in the treatment of the morphia habit is the mania

of injecting. The morbid pleasure of injecting something under the skin is as great a fascination as the effects of the morphia. When this is the case, one must be especially careful about allowing injections of sparteine, and invariably refuse to countenance the smallest addition of cocaine. I was shown one day by a physician, who had called me into consultation, and for whose patient we had recommended, amongst other things, hypodermic injections of sparteine, a most plausible letter, stating that the injections were painful, and asking if there was no way of rendering them less so. My *confrère* proposed that we should add to the solution a small proportion of cocaine, but I strongly advised him to do no such thing, as the invariable result of the hypodermic injection of cocaine is to develop the mania of injecting to an incomprehensible degree. I say incomprehensible because, although a very small dose may produce a certain sense of relief, it is both incomplete and evanescent, having nothing of the vital turgescence resulting from morphia, and being followed almost immediately by an

irresistible impulse to further injections. The patient feels an uncontrollable morbid impulsion, rather than a craving for stimulant, and what is most curious, each injection may be followed by the most alarming and distressing sensations, and yet no sooner have they passed off than another dose of the poison is taken. A gentleman told me that each sensation made him feel as if he were dying, and yet there was a horrible kind of pleasure in the feeling. Others have similar sensations, and feel them only to be disagreeable, and still they are unable to control the impulse that leads them to repeat the injection.* The propriety of refusing to add cocaine to the

* When the patient, and it soon is learned, knows that he can neutralise the discomforts caused by cocaine, to a certain extent, with alcohol, and almost mathematically with morphia, the case assumes the gravest aspects, and restraint may become necessary. I have known a morphia habitué who was taking, a few days before, four or five grains of morphia only, alternately inject morphine and cocaine for hours together, demorphinising himself, as he expressed it, with cocaine, and neutralising the overdose of cocaine with brandy and morphine, until he fell into a state of semi-coma, which would last sometimes for twelve or fourteen hours.

sparteine solution in the case I refer to was speedily confirmed. Not obtaining the desired prescription from her medical attendant, the patient worked on the feelings of a too-indulgent and weak-minded father, and so procured a first solution, of which she promised to take only a few drops at a time, in order to be able to abolish the pain of the sparteine. The supply was soon exhausted, but the impulse once started, it became necessary to obtain larger quantities, both of cocaine and morphine. Although she was not left alone for a moment, and had a young medical man attached to her person, she managed to purchase from 20 to 30 grains a day, without any-one knowing it, for more than two months. At last, her husband, a medical man, and a morphia habitué himself, puzzled by the outbreak of hallucinations, which were set down by the father to deprivation of morphia, sent for me hurriedly one night. The symptoms being identical with those I had recently seen in a case of acknowledged cocaine poisoning, I taxed the patient with taking it, and easily obtained a full

confession. She had, notwithstanding the surveillance, retained the direction of her household, and had allowed a flighty maid to remain out half the night, on condition she should bring back the necessary supply of cocaine and morphine, which were entered upon her book of household expenses as butcher's meat or groceries. Speculating upon her mistress's passion, the servant had already made her pay for what had been supplied with various articles of jewelry, and the very day the affair was discovered she had given her two valuable bracelets, which had been pawned with an unlicensed receiver for over fifty pounds. It was partly through fear of the hallucinations, but more the dread of being in the power of her servant, that led the patient to make her confession. From her point of view, confession had also the advantage of establishing the fact that she was also a cocaine habitué, and, although I was in favour of cutting off the cocaine brusquely, other counsels prevailed, and in all her subsequent pretences at treatment, both morphia and cocaine were given concurrently. The last time I heard

of this patient, she had once more, when within a fraction of a grain of complete suppression, bribed the wife of a chemist to send her morphia in a double-bottomed *bon-bon* box at the price of two pounds a gramme; the cost price being about threepence.

CHAPTER VI

THE next great factor of the craving is hyper-acidity of the stomach and organism generally, and this naturally suggests as a treatment the administration of bicarbonate of soda. For thirteen years I have been calling attention to this fact in English publications, and although still apparently unknown in England, its importance is now recognised by every writer on the Continent, Professor Joffroy, of the Paris School of Medicine, being the last one to endorse it and to recognise my claims to its authorship. It may seem strange to make a therapeutic agent like bicarbonate of soda play an important part in the treatment of the morphia habit, but some go even further than this and make it little less than a panacea. Erlenmeyer, who labours under the impression that he was the first, in 1895, to suggest its use, as I have

said already, has even given this means of treatment the name of 'chemical demorphinisation.' As I pointed out in four different publications before that date that hyperacidity was an important factor of the craving, and insisted in each instance upon the value of bicarbonate, the only thing that can be claimed truly by Erlenmeyer is to have given a high-sounding name to one of my discoveries, and to have correspondingly exaggerated its importance.*

* In my contribution to the *Encephale* (1887) I say: 'The only medicines that have always seemed to me useful are bicarbonate of soda and preparations of valerian.' And in a note I asked whether this might not be due to a neutralizing action on the acid products of imperfect combustion, etc. In three or four other places I allude to the possible rôle of acidity in the morphia habit, and to the value of bicarbonate of soda also in the after-treatment.

In 1890 ('Cure of the Morphia Habit,' p. 80) I say: 'One of my invariable recommendations when there is any stomach difficulty is the administration of bicarbonate of soda in the form of Vichy water. Its effect in the relief of the craving is often immediate, not being limited to the neutralization of overacidity of the stomach. Alkaline solutions increase the efficiency of the heart's action, and cause contraction of the capillaries—a result which lessens abdominal stasis and helps to facilitate the general circulation.

It is quite evident that hospital or asylum patients can be forced to give up their morphia whether treated by bicarbonate or not, but bicarbonate will not help to the extent of suppressing the craving by itself, which would be the only case in which it would deserve the name of an ade-

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In the *Medical Annual*, 1894 : 'Dr. Haig has pointed out (as I hinted seven years ago) that the condition of the organism as regards acidity is one of the factors of the craving. This accounts for the immediately soothing effect of bicarbonate of soda. . . . During this period the discomforts which are caused by the overcharging of the system with uric acid . . . everything should be done to prevent the formation of acid and to promote its excretion. . . . Bicarbonate of soda should be given according to indication,' etc.

These quotations show pretty conclusively that Erlenmeyer, who announced his discovery in 1895, has copied from me, perhaps unconsciously, although, curiously enough, he contributed a paper to the *Encephale* the same year as myself. The treatment therein described — his so-called rapid method—is the one recommended by the few writers — Clifford Allbutt, among others—who were not acquainted with mine. Since then Erlenmeyer himself has solemnly renounced this method (*Progrès médicale*, 1896) for his so-called 'chemical demorphinisation,' which is in reality part of my treatment.

quate method. Bicarbonate relieves the craving in so far as it is caused by overacidity, in the same way that heart tonics relieve it, *quâ* cardiac sluggishness, and nothing more, but it is none the less satisfactory to find that according to others I have here again understated, rather than exaggerated, the value of my treatment.*

* Dr. Clifford Allbutt, writing to me, says that he had read Erlenmeyer's paper on bicarbonate of soda, but had looked upon it as a fad ; and unless the very important rôle that hyperacidity plays as a factor of the craving is understood, it is not surprising that the value of so simple a remedy as bicarbonate in a case like the morphia habit should be looked upon with incredulity. *I have no hesitation in saying, however, that outside of the morphia habit I have several times saved life by the administration of a teaspoonful of bicarbonate of soda ;* and I am equally convinced that hundreds of valuable lives are lost annually that might have been saved by the same means. Bicarbonate of soda, it must be remembered, is, under certain conditions, a powerful tonic to the heart and circulation—that is, whenever sluggishness of these organs depends upon acidity. It is an elementary physiological fact that paralytic vaso-dilatation is caused by acidity, hence the abdominal stases of the arthritic. Many a man with an unsuspected weak heart that is only just equal to doing its work returns home from a public dinner with a sense of fulness and discomfort that is temporarily masked by the tonic effect of the final cup of coffee and the

Various other means of relief may be applied according to symptomatic indications, but the last of my therapeutic triad is the hot-air bath.

'Until within the last year,' I wrote in 1890,* 'I generally used to prescribe some kind of hypnotic at the last critical moment—chloral, methylal, hydrate of amylene, sulphonal, etc. ; but now I rely mainly on the hot-air bath, repeated, if necessary, and followed by the cold douche. For some time after the termination of the treatment I continue these baths,

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stimulus of the wines, and goes to bed expecting the discomfort to pass away as heretofore. As, however, the stimulative effect of the wine and coffee passes off, the system becomes more and more charged with acidity, as a result of imperfect digestion, and this coinciding with the reactive depression following upon alcohol stimulation, the heart and bloodvessels lose what remains of their tonicity. Both become dilated, the heart beyond its power of recovery, and death occurs either during sleep or before help can be obtained. In such a case a teaspoonful of bicarbonate of soda would positively have saved life, and if the reader can imagine what would be the discomfort in such a patient on going to bed, and what would have been the difference had the heart been strengthened by a cardiac tonic and the hyperacidity prevented by suitable means, he ought to be able to realise the relief that is afforded under similar circumstances to morphine habitués.

* 'On the Cure of the Morphia Habit.' London : Baillière, Tindall and Cox, 1890.

which are also the best means of preventing and combating any revivescence of the craving; and it was through their action as a preventive of relapse that I was led to use the hot-air bath as a means of treatment.'

And further on:

'The moderate restlessness which occurs when patients are properly treated disappears entirely in the hot room of the Turkish bath; and the subsequent massage and cold douche form the most perfect sedative that a morphia patient can be allowed. There is no better means, moreover, of dealing with the revival of the craving that occurs from time to time, especially under the influence of indigestion.'

In several of the cases reported, moreover, its use is especially noted; it is mentioned in one that for the last week the patient took Turkish baths regularly.

As a matter of fact, I used the Turkish baths long before 1890, for in a reprint of my paper in the *Encephale,* in 1887, I stated it was

'an excellent means of calming the agitation caused by attempts at suppression, giving rise to sensations that resemble morphia, and being followed by lassitude most agreeable to the agitated.'

And speaking of the after-treatment of the case on which the paper is founded:

'Whenever the necessity of a tonic or a calmant is felt, he has recourse to the Turkish bath, and it would be difficult to find a more efficacious means.'

In the *Medical Annual* (1894) I am even more emphatic as to its value and to its importance as a regular part of my method. And here again I have certainly not overstated my case, for the author of a Montpellier thesis makes alternate douching with hot and cold water a method by itself, and there is now an institution for the cure of the morphia habit by hot-air baths alone. It is highly probable that other means are used concurrently, for however valuable the hot-air bath may be, the cure will never be too easy, and there can be no reason for rejecting any one of the means that have been proved to be useful. In a recent case, wishing to test the value of the baths alone, a very unmanageable patient of mine was submitted to this treatment, but he contrived to cheat, and it did not prove nearly as satisfactory as the exponent of this treatment, who was directing it, had promised. Being afterwards placed under conditions which prevented all de-

ception, the system of rectal injections with bicarbonate of soda was substituted, and he was cured without knowing when he had passed the Rubicon. I am not desirous, in alluding to this case, of detracting from the value of the hot-air bath, inasmuch as here again, whatever may be its value, the idea is my own, and forms an integral part of my method of treatment. It is better, however, not to expect from it more than it can do, and in most cases, however great the relief obtainable from the bath, it stands to reason that it cannot be as helpful alone as the association of the three different means corresponding to the three chief indications of treatment.

The effect of the bath is due in part no doubt largely to its tonic and sedative action, but it may also act as an eliminator of some excitant of craving. This may possibly be the oxy-di-morphine which is formed in the body, and considered by Marmé as its chief cause, experiment having shown that oxy-di-morphine when injected into the system in a virgin subject produces the symptoms of craving. It may be also, as I have always maintained,

that it is a moderator of acidity, and this would explain its value in the after-treatment, when the ex-habitué, unless extremely abstemious, is saturated with acidity, and when it would be difficult to explain the spurious cravings by oxy-di-morphine.*

* In the morphine habitué it is important to prevent as a result of a too rapid progression the development of a condition of irritable weakness, of a hysterical state in which the nervous system becomes a microphone for discomfort, and is acutely distressed by what would otherwise be unimportant impressions. The morphia habit has induced a hysteria which has been kept latent, or at least intermittent, by the very means that brought it about, and we must try to prevent it becoming a disturbing factor during the suppression.

It is easily understood that, given a certain measure of discomfort, the degree in which it is felt will depend upon the special sensibility of the individual ; and anything that combats weakness will render the sensibility less morbid.

It has been thought that the hot-air bath might act as an eliminator in chronic conditions associated with uric acid, but insignificant quantities only have been excreted by forced sweating. Until it is otherwise demonstrated I shall continue to look upon the factor of the craving that is remedied by the hot-air bath as mainly a 'state of the body,' much more than a 'something to be excreted.' The hyper-acidity is due to a depression of function, as is also the heart-failure ; and it is also by remedying functional depression that the hot-air bath is chiefly useful.

CHAPTER VII

THE three means of treatment that have been chiefly discussed up to the present—heart tonics, bicarbonate of soda, and hot-air baths—constitute the therapeutic triad that, together with the special mode of reductions by means of rectal injections, make up the method I advocate; but in accordance with the idea of anticipating and forestalling every increment of craving that may result from organic failure or functional perversion, other precautions must sometimes be taken.

One of the first indications is to make all the organs work as easily as possible, so that the gradually decreasing morphia energy may suffice to keep the human machine going with as little discomfort as possible. By this means, the miseries which, in the aggregate, would otherwise make up what is felt as a craving for the

accustomed stimulant, are reduced to their minimum, and the different succedanea, which would be inefficient if employed without these precautions, become efficacious. In the second place, no unnecessary demand must be made upon the energy in general, or upon that of any organ in particular; for although the organism, restored to a proper balance by the different means employed, will manage to get along with the decreasing doses of morphia, we have, so to speak, nothing in hand, and the least call, either on the system in general or upon some particular organs, may excite an imperative craving for an increase of the habitual stimulant.

During the last period the patient must be prepared to be literally content to vegetate. Active amusements, which are useful earlier in the cure, and later on, when the total suppression has been reached, cannot always be encouraged; that is, any amusements that require *entrain*. They will not always, as is commonly supposed, enable the patient to forget the craving. Sometimes they only cause the amount of morphia taken to

be frittered away in unnecessary action, and if the excitement is enough to keep the patient going at first, the 'go' is purchased at the expense of increased craving afterwards and an earlier demand for morphia. On the other hand, occupations which distract the patient's mind from himself, and amusements that do not require the expenditure of energy, such as musical and theatrical performances, are of the greatest value.

The amount of exercise also requires the most delicate regulation, and the two conditions during the third period of reduction are that it should neither be unnecessarily active nor taken at the expense of the morphia energy. After each dose of morphia, a fictitious vigour returns for a time, but if this is expended in useless activity its duration is more ephemeral, and the want of the stimulant is felt earlier. It is better to economise the effect of each dose by remaining quiet as long as possible. As soon as a little restlessness is felt, it may be relieved by a gentle walk; but after a time the restlessness is accompanied by a feeling of prostration, and although there is an instinctive

desire to keep the legs and arms moving, the weight of the body makes exertion too tiring, and the attempt is soon given up. During this period of the reduction, although the sensations felt may be summed up in the expression 'irritable weakness,' there are great differences in the symptoms experienced by different patients. In some there is chiefly prostration, in others restlessness predominates. A Turkish physician who was under my care at the private hospital of St. Jean de Dieu remained in bed nearly all the time, and when he got up immediately repaired to the hammock, which allowed sufficient play to his limbs to satisfy all desire for movement, and at the same time obviated the necessity for making any exertion. When the opposite condition exists, there is no better means of satisfying this restless thirst for locomotion without fatigue than moderate exercise on the tricycle.* The weight

* See for further details my book, 'La Santé par le Tricycle,' of which an English translation by Dr. Crosse Johnston, entitled 'Cycling and Health' (second edition), is published by Iliffe, Fleet Street.

of the body is entirely removed, and provided a suitable road is available, the exercise of the limbs affords the greatest relief for the restlessness without causing the fatigue that might bring about an increase of the craving. It is, of course, easy in this respect to overshoot the mark, but used in moderation, the tricycle may be turned to the greatest advantage.

The liver is generally enlarged and sluggish, in consequence of the constant alternations of active hyperæmia and passive stasis, which correspond to the alternative conditions of morphia satisfaction and abstinence. This functional disturbance of the liver is often aggravated by the immoderate use of alcholic stimulants. These, of course, should be suppressed, or in special cases only allowed in medicinal quantities. Care should be taken to regulate the bowels, and as the stools are often hard and of immense size, it is often necessary to lessen the mechanical difficulty of defecation, which can be easily done by using a suppository overnight. I have known several habitués who have only had relief of the bowels

once a week or even less frequently, and the operation was so dreaded that it invariably necessitated an increased dose of morphia.

Another organ requiring no little management is the stomach, and this on account of its vast possibilities with respect to indigestion. The morphia habitué digests not with pepsine, but with morphine, and when the quantity is restricted it becomes necessary to tax the functions of the stomach as lightly as possible. Some authors recommend a liberal and nutritious food, and I have no objection to offer if it can be digested. But this is not the case at the end, when it generally happens that no food can be taken in comfort except in conjunction with morphia, and even then it must be of the lightest and most digestible kind. The question of diet becomes then of the greatest importance, as an imprudent meal may often cause a relapse of several days.

The avoidance of indigestion is not only an important precaution during the reduction cure, but it is one of the chief things to be observed as an after precaution. More early relapses are

brought about by indigestion than by any other cause, and the occasion is not unfrequently the festive gathering that celebrates the return of the ex-habitué to society. Notwithstanding the best resolves, he allows himself to be overpersuaded, and rises from table with the sense of discomfort, increasing as the evening draws on until he has reached the highest intensity of dyspepsia, that threatens, and even may be the imminence of, heart failure. Many ex-habitués are hypochondriacal about the state of their heart, and it is difficult under the circumstances to resist resorting to a hypodermic injection that past experience has shown to be infallible.

I have already mentioned the value of the hammock, and I may add the rocking-chair, as a means of combining movement and repose, and so of relieving simultaneously restlessness and fatigue; and of the importance of wooing back sleep by proper habits. For insomnia cerebral galvanization is sometimes magical. Fluid extract of coca, and sometimes kola, are used frequently; and the only other drug that is taken constantly

by my patients is Pierlot's preparation of valeri-anate of ammonia. In exceptional cases, where the method is not or cannot be followed properly, a number of different remedies may be given, according to indications, but these are discussed in a later chapter.

I would give, however, a warning here against some of the synthetic derivatives of morphia recently devised, and particularly heroin, which is largely vaunted now as a treatment of the morphia habit *par excellence.* The craving following its use is infinitely more unmanageable than that of morphine, and in two cases treated by me recently, the doses were rapidly increased, and the patients became violent when it was attempted to suppress it. It is only second to cocaine as a drug to be avoided.

It has been said, and repeated, that ex-morphine habitués are subject to periodical revivals or tides of craving, and that these discomforts are more likely to occur in those who have undergone a slow reduction. Both statements are errors of interpretation. In the ex-habitué there is always

a most extraordinary return of vitality after suppression, a kind of vital exuberance, which is so certain that however grave may be the condition of a patient during his addiction, restored health may be promised if the habit is renounced.

One of the best proofs, indeed, of the advisability of the progressive plan is the fact that when properly carried out patients generally put on flesh during the treatment, and as soon as the morphia is entirely set aside the increase of weight is hourly visible. I have several times known patients to gain 2 pounds and even a little more per day. This physical recuperation has been taken as an indication to gorge such patients with food; but although the power of assimilation is good, the nervous equilibrium is unstable; and when the patient is overfed, it leads to metabolic perversions of different kinds.

The ex-habitué has acquired more or less completely the congestive habit of body which goes with vital exuberance and nervous instability; and one of the consequences of it is a tendency both to hyperchlorhydria and excess of uric acid, both of

which were formerly factors of craving. Besides this, the ex-habitué is generally polydipsic and boulimic; and being encouraged in the matter he does not restrain his appetite, drinks, as a rule, freely of fermented drinks, and eats in proportion. As he is easily tired and has a disinclination to active exercise, he is as a consequence of this over eating and drinking, nearly always saturated with uric acid and on the imminence of bilious or gastric failure. It is easy to understand that when saturated with acidity generally, and perhaps suffering also from acute or chronic acidity of the stomach, the symptoms experienced will be those that we have shown to be associated in the past with these conditions—that is to say, a feeling of morphia craving. We must also remember that every morbid sensation during the past addiction having been uniformly treated by the injection of morphia, every malaise in the future will suggest by association the idea of craving for morphia.

These explanations may sound like a quibble, for if the patient experiences what seems to him like a craving for morphia, it is of little importance

to him whether it be a real or pseudo-sensation, direct or associated. Besides, however, the fact that the patient is often inclined to exaggerate his sensations in order to have an excuse for relapse, the practical point is that these 'recurrent tides of craving' are both preventable and remediable.

From what has been said of their causation, it will be understood that the treatment should be on the same lines as that of the weaning, at the same time preventive and remedial of the acidity which causes them, and of the tendency to neurasthenic irritation that gives what would be otherwise an ill-defined malaise its symptomatic importance. Treating my cases on these lines, I have never had any trouble whatever with these cravings. Looking upon them as sensations caused by hyperacidity in a morbidly irritable system, a moderately nutritious diet without fermented drinks has always been insisted upon; and conversely high living and free drinking in a recently cured habitué may be taken as a sure sign of a still more recent or imminent relapse. To those who have a tendency, notwithstanding an

abstemious diet, to uric acid formation, a tendency always increased by morphia suppression, bicarbonate of soda is, of course, indispensable, When the craving has been brought on in consequence of an error of diet, bicarbonate is again the remedy, and if there has been anything like excess, an emetic of hot water.

Besides these remedial measures, the patient should do everything he can to promote a healthy tone of the system, take as much exercise as is possible without undue fatigue, to which end he will find cycling, and for preference the tricycle, invaluable. Another prophylactic precaution is the regular use of the Turkish bath; and with these means the bogie of returning tidal cravings may be set at defiance.

CHAPTER VIII

I HAVE already mentioned the endorsement of my methods by subsequent writers. The following quotations will show how completely and unreservedly their value has been acknowledged.

In Germany the most important work is that of Erlenmeyer, who, after writing a very large volume in praise of his 'Rapid Method,' has renounced this plan in favour of 'Chemical Demorphinisation,' that is to say the administration of bicarbonate of soda as suggested by me.

In France four monographs have appeared. I do not count reprints of articles or graduation theses. The earliest in date is 'Le Morphinisme,' by Dr. G. Pichon, a book of close on five hundred pages, published in 1890. I have already quoted what Dr. Pichon says in his chapter on the symptoms about my investigations concern-

ing the state of the heart and pulse in habitués, and my recommendation of sparteine. Nothing can be more emphatic.

Dr. Ernest Chambard in 'Les Morphinomanes,' in his chapter on treatment, first quotes my warning concerning the danger of alcohol, and mentions one of my cases where the grave symptoms of morphinism remained in abeyance until the patient took to drink. He then discusses the new 'substitutive treatment,' to which he says 'M. Jennings has given the name of Physiological,'* and points out that sparteine causes a certain well-being resembling euphoria, and an attenuation of the craving, which is the most painful symptom, and the chief obstacle to success in treatment. 'I cannot,' he adds, 'for want of personal experience, pronounce on the practical value of the physiological method of M. Jennings; it is, however, ingenious and rational, and seems to mark a first step in a path which will be full of surprises, and it merits in

* This is a mistake; I made no such claim. It was Dr. Pichon who first applied this name to it.

any case to be experimented with care.' Dr. Chambard devotes two or three pages to a description of the kinesitherapeutic medication also proposed by me, and which consists of the substitution of all kinds of harmless dynamic stimulations for the forbidden morphia, and quotes the case of a patient cured by this 'new and ingenious method.' In the last two pages of the chapter he enthusiastically confirms my recommendation of the cycle as one of a number of means of preventing relapse.

Dr. Guimbail published a work with the same title as the preceding in 1893.

He begins by discussing the three so-called 'methods'—slow, brusque, and rapid, and adds that neither allow of the habitués being relieved of the tortures of abstinence. 'In order to suppress the torture,' he says, 'specialists have for some time sought to substitute for the habitual stimulants another agent capable of calming the malaise, suppressing the agitation, and restoring to the cardiac muscle the tonicity it wants. M. Jennings,' he continues, '*whose authority in all*

that concerns morphinomania is contested by none, divides the treatment in three periods.' These are described. Further on he confirms the value of sparteine in causing the disappearance of discomforts brought about by depression of the heart. 'According to the patients,' he says (quoting from my communication to the Academy of Sciences), 'this medicine *gives them heart.* The indications of the sphygmographic tracings show how this familiar expression is rigorously exact from the point of view of the physiological action of the heart. Sulphate of sparteine increases the contractile energy of the heart, regularises its rhythm, acts with great rapidity, and possesses a considerable persistence of action. These are properties that render it extremely precious in the period of abstinence, and make it a *médecine de choix.*' He warns patients that they may feel certain disagreeable symptoms, such as buzzings in the ears, a feeling of constriction, shivering, hiccough, and sensation of cold, but, as I have since said, the dose indicated by the earlier writers was mistakenly given at four centigrammes, and this is

excessive. All the useful effects can be obtained, without the discomforts mentioned, with centigramme doses.

Speaking of the hydropathic treatment: 'In the same way the Turkish bath may be useful in the suppression of morphia. There is some vague resemblance between the sensations it provokes and those that the injection of morphia causes; the well-being that follows on its action is not without analogy to the congestive stimulation caused by the stimulant solution. *The Turkish bath, somewhat prolonged and followed by a clever massage, leaves behind it a state of appeasement and of calm precious in combating the agitation inseparable from the period of abstinence.*

'Alkalies,' he declares, 'should be largely under the form chiefly of Vichy water. *I have,*' he says, '*always seen morphine habitués derive the greatest benefit from it.* It seems probable,' he adds, quoting me again, 'that the neutralising action of bicarbonate of soda on the acid product of imperfect combustion (uric acid, etc.) is above all efficacious.

'Alkalies dissipate in part the fatigue habitual

to morphine takers. As is known, this sensation is placed under the dependence of a state of hyper-acidity of the muscles, and it is natural to suppose that the contrary condition (alkalinity) should give rise to an opposite sensation.'

The value of dynamic stimulations is discussed at length, and Dr. Guimbail adds, 'I never fail to counsel these curative means, which are all useful, to my patients, on condition that they shall not determine fatigue.'

I am glad to be able to say that Dr. Guimbail, whose competence in matters of asylum adminis-tration is undisputed, and who might have been suspected, if anything, of a bias the other way, declares himself entirely of my opinion as regards the impropriety of sequestration. 'It is of course,' he says, 'easy to obtain a temporary weaning in a *Maison de Santé*, but as soon as the patient has left the establishment, as soon as the will is free, the danger of a relapse is considerable; so that the radical cure can only be assured by the free consent and co-operation of the patient. *I admit that to will in the present is a serious*

guarantee for the future. I partake absolutely of the opinion of Dr. Jennings when he declares that our end, for us doctors who treat morphia habitués, is not to arrive at the suppression of the morphia, but at the suppression of desire. To succeed we should, in a way, effect the education of the dormant will.'

Last, but not least, comes Dr. Paul Rodet with his volume '*Morphinomanie et Morphinisme*' (*couronné par l'Académie de Médecine*), published in 1897.

'O. Jennings,' he declares in the first chapter, 'is one of those who have best understood the treatment of morphinism. His sphygmographic studies have led him to propose the use of cardiac tonics, which to-day have entered into general practice. He proposes, moreover, a host of little means which are precious adjuvants during demorphinisation. It can be seen that he has experimented them himself.'

Speaking further on of the craving: 'O. Jennings has very well characterised this psycho-somatic state in calling it at once a sensation and a sentiment. It gives the sensation of an unappeased

appetite and of an unsatisfied desire.' On pp. 136, 141, 160, 164, different clinical remarks with reference to alcohol, the effect of morphia on the sexual appetite, etc., are quoted with approval. On pp. 242-245, the technique of the suppression is given, according to the rules I have laid down.

On p. 251 begins the chapter entitled 'Médication physiologique de Jennings,' which M. Rodet declares to be the outcome of my sphygmographic researches, which led to the institution of 'a most rational medication, and one which renders the greatest services.'

Finally, on p. 257, in the section on physical agents, after remarking on the restlessness and agitation of habitués under suppression, he passes under review a number of my means of treatment. The hammock which conciliates the reposing tendencies to repose and movement—mechanical vibration—the Turkish bath and the bicyclette, all of which are recognised as rendering the greatest services. One mistake of omission occurs which Dr. Rodet admitted without hesitation, and that is the absence of any mention of my name in

connection with bicarbonate of soda and hyperacidity, which is attributed to Erlenmeyer under the heading 'Chemical Demorphinisation'; but he promises a rectification in his next edition.

After such endorsements nothing further should be required, but I will add the opinion already alluded to of Professor Joffroy,* disposing of Erlenmeyer's pretensions to priority, which, emanating as it does from one who occupies the chair of cerebral and mental disease at the Paris Faculty of Medicine, cannot but carry with it an exceptional weight. In acommunication to the Société Médicale des Hôspitaux in November, 1899, Professor Joffroy had made known the results obtained by him in the treatment of the morphia habit by the use of bicarbonate of soda, which, he said, had been proposed by Erlenmeyer. Calling upon Professor Joffroy, and showing him the passages in my writings referring to this matter, he readily acknowledged that he had been mistaken in attributing

* 'De la Morphinomanie et de son Traitement,' lectures delivered at the Asile Ste. Anne, in *Gazette Hebdomadaire*, November and December, 1899.

the treatment to Erlenmeyer, and promised a correction. A few days later the lectures were published. He quotes the fact of the hyperacidity of the stomach during suppression, and of the prevention of any physical sign of abstinence by the administration of bicarbonate of soda. 'I counsel you,' he now says, 'to apply this method to your patients, making them drink Vichy water conformably to the plan of O. Jennings and Erlenmeyer;' and in a note, 'Let us mention that Dr. Oscar Jennings, who has published interesting works on the question, had from 1887 ("De la Morphinomanie," 2nd edition, p. 31) and at different times since then (particularly in the "Cure of the Morphia Habit," p. 80, and in the *Medical Annual*, 1894, p. 421) indicated the acidity of the stomach secretions during demorphinisation, and the use of bicarbonate of soda as an invariable method, and giving the best therapeutic results.'*

* Dr. Norman Kerr speaks of the use of heart tonics as a 'splendid contribution' to the literature of morphinomania, and states that they have been in his hands invaluable ('Inebriety,' London, 1889, p. 277).

CHAPTER IX

In the first edition of this book I published a certain number of illustrative cases.

The first concerned an officer who had acquired the habit for the relief of gastralgia. He came to Paris in an official capacity during the 1889 exhibition. He was not taking a very large dose, nor had the addiction been of long duration—a year only—but he had already failed repeatedly in his attempts to cut it off, notwithstanding a real display of will power, which was evidenced by his keeping to the minimum quantity necessary to allay discomfort. With his wife as attendant, in six weeks' time he returned to Paris, and the last dose had been taken on the day prescribed. I quote this case chiefly on account of the sequel, which is mentioned in the second edition of my book 'Cycling and Health.' He had promised

that he would on no account take morphia again himself. In the course of the year the gastralgia returned, and he came to me one morning begging for an injection. I pointed out to him that the relapse of pain was certainly due to his own folly—very irregular meals, numerous banquets, long attendance at his office often during part of the night, being stimulated by the hope of advancement and distinction. Washing the stomach out was then greatly recommended, and having seen it successful in similar cases, I employed it here. It relieved for a time, but the pain returned, and he consulted turn in turn, without result, nearly every specialist in Europe, each treatment succeeding for a time, to lose its effect shortly after. It was at this juncture, when nothing seemed left but a return to morphia, that he was entirely cured by cycling.

All the conditions likely to bring about an excess of acidity had here resulted in a stomach trouble that made it seem for a time as if morphia must be used, and this danger vanished as soon as a hyper-oxidising exercise was systematically used.

My patient was so earnest about his treatment that he had measured out, in the Bois de Boulogne, a thirty-kilometre ride, and, wet or dry, every morning he went over his course.

There are several other cases also worth reproducing:

A medical man, aged thirty-two, was brought to me by his cousin, a well-known alienist. The habit had originated in family annoyances, and was of two years' standing. I transcribe the progression from beginning to end, in order that it may serve as a model for others as regards the mechanism of the reduction. He was taking at the time 60 centigrammes a day, which was rapidly reduced to 40 taken in four doses. From 40 to 24 the decrease was at the rate of 4 centigrammes a day, from 24 to 16 it was 2 daily, from 16 to 8, 1. From 8 to 6 the decrease was at the rate of 1 daily, with an allowance of 2 by the rectum for every one suppressed hypodermically. As soon as 0 by hypodermic injection was reached, the progressive decrease of the morphia taken by the rectum was commenced and carried out according to the accompanying tableau:

TABLE OF REDUCTIONS

	8 A.M.	2 P.M.		7 P.M.	12 P.M.
1	10	10		10	10
2	9	9		9	9
3	8	8		8	8
4	7	7		7	7
5	6	6		6	6
6	6	5		5	6
7	5	5		5	5
8	5	4		4	5
9	4	4		4	4
10	4	3		4	4
11	4	3		3	4
12	3	3		3	4
13	3	3		3	3
14	3	2		3	3
15	3	2		2	3
16	2	2		2	3
17	2	2		2	2
18	2	2		1 (II)	2
19	2	2		(II)	2 (II)
20	2	1 (II)		(II)	2 (II)
21	2	(II)		(II)	2 (IV)
22	1 (II)	(II)		(II)	2 (IV)
23	1 (II)	(II)		(II)	1 (VI)
24	(IV)	(II)		(II)	1 (VI)
25	(IV)	(II)		(IV)	(VI)
26	(IV)	(II)		(II)	(VI)
27	(III)	(II)		(II)	(V)
28	(II)	(II)	(4 P.M.)	(II)	(IV)
29	(II)		(III)		(IV)
30	(II)		(II)		(IV)
31	(II)		(II)		(III)
32	(II)		(II)		(II)
33	(II)		(I)		(II)
34	(II)				(II)
35	(I)				(II)
36	(I)				(I)
37					(I)

Although the final result was unsatisfactory, the patient relapsing at the last moment on account of paroxysmal cough which nothing but morphia could relieve, the table shows how to conduct a typical reduction. The eventual failure proves, moreover, that there was a real difficulty, which had only been kept in abeyance, thanks to the methodical exactitude with which all the directions were carried out.

The compensatory morphia, noted in the tableau with bracketed Roman figures, was given in the form of a solution administered by means of the glycerine enema syringe, an instrument that might have been devised especially for the purpose. This plan has the advantage over suppositories of being always accurate as regards dosage, and much quicker in effect, the patient having the satisfaction of appreciating the cessation of the commencing malaise. The hypodermic morphia was given in the form of tabloids. Although complimented daily by his cousin and myself upon the punctuality with which he followed his treatment, my *confrère* declared that he suffered so little discomfort that

there was no merit on his part in adhering to the programme. Sometimes he was himself surprised, and would ask us if we had not hypnotised him into obedience to our wishes. At one time there was a commencement of that mental yearning which is much more distressing than pain, but this was kept under by frequent applications of the galvanic current, the anode on the nape of the neck, the cathode on the forehead. He took sparteine internally during the whole of the treatment, as well as bromide of sodium, and used faradisation and trinitrine whenever there was restlessness. Finally, when he had reached the amount of 1 centigramme by the mouth, he was seized with repeated attacks of convulsive paroxysmal cough, for which everything which he and I could think of was tried in vain. Painting the fauces with nitrate of silver, local applications of cocaine, large doses of bromide, inhalations of ether, and hypodermic injections of phosphate of codeine, together with many other sedatives and antispasmodics, all were used without success. Under the influence of ether the cough would cease, as it did also in

the hot-room of the Turkish bath; but it was, of course, impossible to keep up this treatment continuously, and the patient returned temporarily to a small quantity of morphia, promising me to give it up as soon as he got to a warmer climate. My own opinion was that the cough was neuro-mimetic, as I had remarked all through the treatment an almost feminine degree of sensibility in other various respects. It must be said also that, although when the treatment was first decided upon, the patient and his cousin had both agreed with me that supervision was necessary, the absence of all disagreeable symptoms caused it to be relaxed, and at the last moment he was certainly overtaxing his resources. I do not know how the case ended; but as the patient set out upon an arduous journey soon after, and has never been near me since, it most likely terminated in a complete relapse.

A lawyer, aged thirty-five, has been addicted to morphia a little over ten years, having been taught the practice by his medical attendant for the relief of hepatic colic. The practitioner in question seems

to have been certainly culpable, having propagated the use of the syringe amongst his patients in the most imprudent manner, leaving them to employ it at their own discretion. The consequence was that, in a small provincial town, my informant knew of at least a dozen habitués. But, unfortunately, the habit once formed, the doctor had been powerless to help him out of the difficulty, appearing to think that it was simply and purely a question of will, and that he could leave off the practice whenever he liked. After several futile attempts at breaking with it, he decided upon coming to Paris, and when he left home his body and limbs were so covered with abscesses, and his health so shattered, that no one expected to see him return alive.

The tableau of the preceding case applies exactly to this patient, with the exception that on several occasions relapses occurred in consequence of different therapeutic experiments that he insisted upon trying, and during which our professional relations were suspended. A long time was lost with cocaine, a whole week through a bad attack

of indigestion, and a few days through an abuse of bromidia.

In no instance have I seen a better illustration of the part played by the heart in the causation of the craving, and of the importance of heart tonics in the cure of the habit. Up to the eighth day of the treatment, which was pushed as rapidly as possible, no succedanea of any kind were given, but on that day I made the following note: Saw Mr. —— a quarter of an hour before the time for making the injection. He was depressed, tearful, and restless, and complained of uncomfortable sensations about the heart; said he would rather give up the treatment at once than continue so to suffer. The tracing of his pulse was as follows:

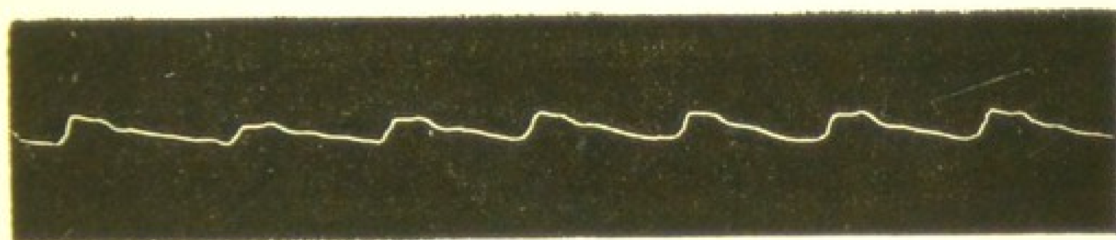

FIG. 7.—EXAMPLE OF HEART WEAKNESS OF MORPHIA CRAVING.

A few minutes after the injection of the morphia it was perfectly restored (Fig. 8).

I then explained to him that whilst desirous of

reducing the daily quantity of morphia as fast as possible, and refraining from the administration of succedanea as long as they could be dispensed with, it is never necessary to inflict the suffering corresponding to the first of the above tracings (Fig. 7). Such a tracing is, on the contrary, the indication

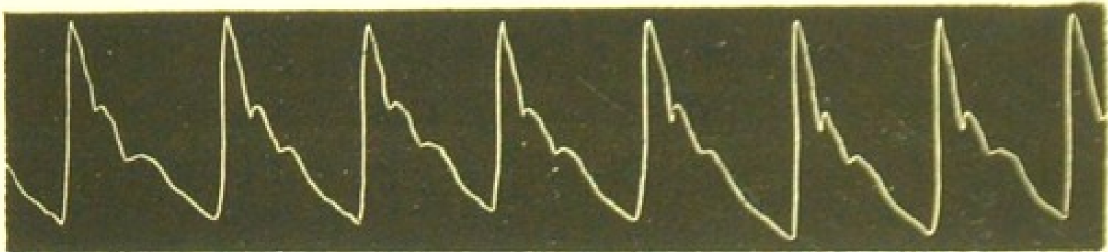

FIG. 8.—RESTORATION OF PULSE BY MORPHIA.

for slower progress—[we had decreased from 40 to 18 centigrammes, about 4 grains, a little more than half the quantity taken, in eight days]—or for the administration of a heart tonic. I prescribed digitalis, and for the remainder of the treatment there was no further trouble with the heart, the following tracing being the worst I obtained:

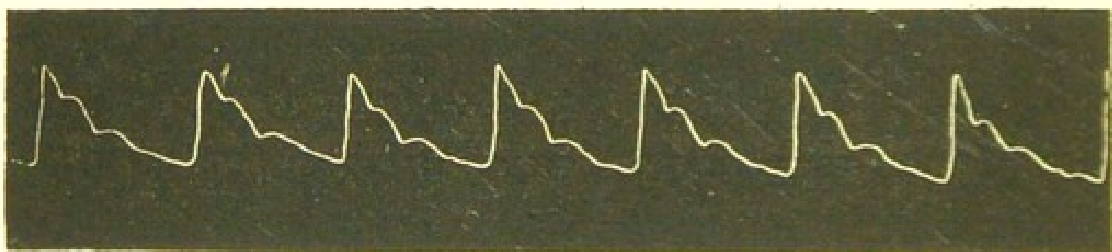

FIG. 9.—STATE OF CRAVING MODIFIED BY ADMINISTRATION OF DIGITALIS.

The chief interest of this case, however, centres in its termination, it being brought to a satisfactory conclusion, thanks to a hot-air bath that was administered the evening after the last dose of morphia, and which brought about a comfortable sleep, although a few hours before the patient was despairing of being able to get through the night. It is worthy of remark that I had at the same time under my care a medical man who always spoke with the greatest confidence about the strength of his will, and his certitude of overcoming the habit, provided I could only make him sleep. Curiously enough, the administration of hyoscine by the rectum procured him regularly twelve hours' sleep, a result I have never seen from it in any other instance. Notwithstanding this, I was not surprised one morning to find that my patient had decamped. As I have said and repeated, a morphia habitué must be in real earnest if he wish to get well, but protestations of energy are no proof of strength. Patients who are too self-reliant are often inclined to modify their treatment, unknown to the doctor, according to their own ideas, whereas past failures

being a proof of their incapacity, it would be far better if they would leave themselves entirely in their adviser's hands. The best criterion of earnestness is consent to all the conditions laid down, more particularly those of which the patient does not understand the import.

The last case of cure is that of a gentleman who had taken morphia for fourteen years, and who had been in special establishments half a dozen times at least. The great bar to his recovery was a fixed pain in the head and cerebral excitement, which occurred whenever he was in a state of craving. The case was peculiar in that it was the only one in which I ever observed a persistence of sexual power, which was certainly increased. The patient had a large family, the youngest child being six months old, and the only one whose health was at all defective was the eldest, born before the father had commenced to take morphia. Gelsemium and codeine were successful in controlling the pain, and for the last week the patient took Turkish baths regularly. Shortly after the cessation of his treatment he began to drink heavily, and this soon led to a return to morphia.

CHAPTER X

THE cases which follow are selected mostly as examples of patients where some real difficulty has been overcome. The first only is what may be considered a typical weaning, but the difficulty is always, not in curing the patient who submits to treatment, but in meeting with patients who will allow themselves to be directed. The time taken may appear long in comparison with cures that take two or three weeks, but it must be remembered that with my plan the patient did not suffer, and that when the treatment was over he was *really cured*, and able to resume his occupation in better health generally than he has been for years previously.

I have amongst my notes a good number of cases which might have been reported as cured in less than a month, but although the morphia was

suppressed some substitute was being taken that was practically as bad. When getting up statistics such cases might easily be counted as cures, in the sense that they are suppressions of morphia, but in reality they are nothing of the kind. The cure is only really definite when every medicine has been stopped. One cannot be absolute in practice, but it is far better as a rule to avoid anything at the end in the least way resembling morphia. Far better to name a longer time for a genuine result than profess to obtain a cure which requires weeks of treatment, by substituting another drug, when as often as not there will be a return to the morphia before the final suppression is obtained.

Dionine and heroin will both of them remove all desire for morphia, because they are practically morphia compounds of a much higher energy; but when it comes to leaving off these drugs the patient will often find that he is in a much worse predicament than before.

I have frequently seen the morphia tapered off by codeine, and recently by dionine and heroin,

and from the time that the morphia was stopped the patient considered himself 'practically cured'; but so little has this been the case, and so far from easy has it been to give up the substitute, that the patient has generally been obliged to return for a time to morphia before it could be finally suppressed.

It seems incredible that a morphia patient on the verge of recovery, and who has hitherto shown the greatest punctuality, should be unable to follow to the end a plan that he has proved to be efficacious, and which requires to be finally successful only a little self-denial for a few days more.

I have, however, frequently seen patients who had got down to half a grain of morphia by the rectum, and who had up till then been entirely free from discomfort, unable to resist the temptation of 'dining with a friend.' Under these circumstances, the absence of past discomfort has been, if not an encouragement, at any rate an excuse for a 'good dinner,' the consequence of which is often a temporary relapse to the syringe.

8

I give the first case as an ideal one, every possible incident having been prevented by the punctual application of the means for relieving each factor of the craving.

In practice, however, it will be found that there are nearly always incidents and hitches, which will not disappear until the patient both understands the treatment, and is definitely decided to allow himself to be directed. I have already said, or implied it several times, but in view of its importance I will say once more, that the more free from discomfort the treatment has been, the more reason it is for carrying out every precaution until the finish, as the neglect of any one condition may revive craving, which is entirely manageable when all are observed. There is never any trouble about giving up the syringe, and decreasing the rectal injection to half a grain. The end at half a grain by the rectum is only a few days off, and if the patient continues the same method that he has been applying for a month or so, it is surely within grasp. But he must continue it. Let him give way to the temptation that nearly

always at this stage prompts him to escape from control, and this first failure of will* is sure to be followed by others. The regular routine of treatment is replaced by a régime of caprice and indulgence, and although there may have been neither desire nor intention of returning to morphia, unless the mistake is shortly recognised, there will be a relapse.

Case I.—Here is a typical example of what can be achieved, provided the patient conforms absolutely to rules.

A stockbroker, aged forty-six, commenced the use of morphia twenty years ago for gastralgia, and had continued it on account of the relief it gave to business anxieties and the increase he experienced of business capacity. Besides which, his wife having left him when he was just beginning its use, he had drifted into an irregular liaison, and he found the morphia invaluable at

* The best evidence of will in a morphia habitué is the renunciation of all initiative, and the resumption of initiative before the time agreed upon—that is to say, before the end of the treatment—is a proof of failing will and a returning tendency to self-indulgence.

first for prolonging, as it appeared, a youthful state of vigour.

From 12 grains which he was taking when he commenced treatment, we proceeded by ½ grain reductions to 8 grains. Thence by ⅓ grain to 4 grains. From 4 grains onwards by ¼ grain reductions till the end of the cure.

Towards 4 grains there was a tendency to acid dyspepsia, kept, however, in check by bicarbonate. But henceforth he consented to be abstemious in food and moderate in wine, and his digestion was much improved. From 4 grains downwards he took a hot-air bath night and morning. As we neared 2 grains he was less complimentary than usual concerning the result of the treatment, but on wishing to put him on a somewhat slower reduction, which by a prolonged absence from business would have meant a heavy money loss, I heard no more complaints of discomfort.

At 2 grains rectal substitution was commenced, and the syringe was given up with the greatest satisfaction. The 4 grains of rectal morphia were reduced by thirds to 3 grains, by fourths

to 2 grains, and by fifths till the end, and from 2 grains onwards the hot-air baths, temporarily suspended in the course of the rectal substitution, were resumed. No medicines besides sparteine, bicarbonate, valerianate and coca were used at any time.

The day following the last centigramme of morphia he took 3 cubic centimetres of Duquesnel's meco-narceine solution, 2 cubic centimetres on the following, and 1 cubic centimetre on the succeeding night. He left Paris the day after, and in several letters—one as late as seven months afterwards—he assured me that he had never had any discomfort that could be said to amount to craving. Infractions of temperance were surely followed by pseudo-craving, but knowing its cause he very seldom risked them, and was always able to remedy them by the means I have so much insisted upon. The only drug he had taken on leaving me was trional, which he had given up a month afterwards. He fully endorsed my statements as to the value of the Turkish baths and of the use of cycling, but when he had fully recovered his strength he pre-

ferred golf. In his last letter he made the remark that with such means of preventing and remedying the discomfort that might otherwise occur, any morphia habitué who relapses does so because it is his pleasure.

This is, I think, as near as is possible to a typical case, the only unsatisfactory point being the fact that the patient, on leaving, was still taking trional, which might have led to difficulties.

Some of my other cases are more interesting from other points of view, but I have seen no other patient in whom there was so entire an absence of discomfort, and so perfectly regular a weaning.

It must be said, however, that in no other case have I met with anything like the docility that was shown by this patient, who in the ordinary course of life was considered a somewhat 'rough customer.' But he knew what he wanted, and understood how it could be done; and besides his pecuniary interest in a rapid suppression, he had made a somewhat heavy wager that he would conform exactly to everything that had been laid

down concerning hygiene and diet for the term of the treatment.

I had in this way the opportunity of making an absolutely scientific experiment, having to treat an uncomplicated case of the morphia habit only.

As a general rule, there is the more serious complication to manage in the shape of the habitué himself, which suggests the philosophical reflection that the *patient is always the chief complication in his own case.*

Case 2.—The patient, a married medical man, commenced the use of opium at Cambridge between nineteen and twenty years ago, taking it as a mental stimulant whilst working for the Mathematical Tripos. For some time the dose did not exceed a few drops; but it gradually increased until from 2 to 3 ounces daily were consumed. At different times attempts were made to effect a cure, on one occasion the progressive reduction lasting from May to December, and ending in a failure. To quote the patient's own words: 'The agony which I suffered during the attempt is only to be understood by those

who have gone through it.' Since then, although there was a speedy relapse, the doses have been kept within limits, the daily quantum varying between 2 and 4 drachms. In the month of April the final treatment may be said to have commenced, the patient substituting for the laudanum the use of crude opium, which was taken to the amount of 12 grains a day, this having been decreased to 8 grains, and finally to 4 grains daily. It was found, however, that no further progress could be made, and when there were east winds or cold weather it was even necessary to increase this daily dose. From the time he commenced treatment with me progress was uniformly satisfactory. To say that he was entirely free from discomfort would be an exaggeration; but for the whole duration of the treatment he never failed to eat two hearty meals a day, and, thanks to the effect of cerebral galvanism, to sleep well. The bowels were constipated or irregular, and occasionally the seat of restless pain, besides which there were headaches, exhaustion, and depression of spirits,

symptoms which may be attributed to difficulty of digestion.*

From the beginning of the treatment in Paris digitalis was given; and great benefit was derived from the use of nitroglycerine in the form of Burroughs and Wellcome's compound tabloids, which contain also nitrite of amyl and capsicum. The daily ration was being taken in one dose only the first thing in the morning; and the patient, who was waiting for his quantum at from 6 to 8 a.m., was frequently able to fall asleep after the nitroglycerine and so economise several hours, only taking the opium at 11 or 12. Within a month from the commencement of the treatment the patient attended a meeting of the Société Médicale d'Elysée, where I read a short note of his case; and the treatment seemed to have come to a successful termination. The following day, however, possibly in consequence of a chill taken on going to the meeting of the Society in an

* This case, it must be noted, was treated ten years ago, before my means of treatment were as complete as they are to-day.

open carriage, diarrhœa and tenesmus supervened, with chills, prostration and cramps; but what is worthy of note, no craving for opium. These symptoms lasted for more than a week, the patient remaining in bed three days. He remained with irritability of the bowels until I gave him some bromide of sodium, which had the happiest effect in that respect. After returning home, he wrote me that the appetite and diarrhœa were at first unsatisfactory; but they are now all that could be expected.

As regards the effects of the different remedies tried, the notes of the patient himself, a medical man as already said, will be better than any other narration:

'Nitroglycerine: $\frac{3}{100}$ to $\frac{4}{100}$ of a grain relieves the restlessness and craving during the reduction to a marked degree. When used as tabloids, with nitrite of amyl and capsicum, the effect is increased, comparative ease often lasting from two to three hours.

'Galvanism: excellent as a sedative, being almost invariably followed by sleep after five minutes'

application of from six to eight cells, negative pole on forehead, positive pole on the nape of the neck.

'Coca: doubtless useful in after-treatment, but does not deserve the praise that has been lavished upon it. Its effects are too transient, and it often deranges the stomach.

'Kola: in all respects similar to coca—that is, its effects transient, apt to excite the brain, of little use.

'Cannabis Indica: I have taken formerly doses of one ounce of the tincture during the night, but without effect, unless a wakeful heaviness about the head be attributed to it.

'Turkish bath: after one of these a pleasant restful feeling is secured for some hours; but as to its real merits I am unable to speak, as I was suffering from diarrhœa at the time.

'Hydrastis Canadensis: no use.

'Bromide of sodium: I place this drug next to nitroglycerine and digitalis as a useful sedative.

'I think highly of the linseed as recommended as a regulator of the bowels; and I have also found

it advisable to continue the use of digitalis, without which the pulse is often devoid of tension.'

The rapidity with which the suppression of the opium was effected might make it seem that there was no real difficulty about giving it up. Yet repeated attempts at self-cure had been made ineffectually, and *the patient had been a slave to the drug close on twenty years.*

The teaching of the case is, that what is insuperably difficult as long as the sufferer trusts to his own strength of mind, becomes comparatively easy when a proper method is pursued; and when the patient has recovered sufficient will to abrogate his will entirely.*

As regards the effects of the different drugs, some were satisfactory, others less so. I have not

* I have only known of one case (which is reported fully on p. 82 of my 1890 edition) where an habitué has been able to cure himself without surveillance; but in this case the patient had been appointed to a high official post, and his will was seconded by ambition to distinguish himself. The addiction had only lasted a year, and the quantity taken was less than three grains. The progression was arranged for a total suppression at the end of six weeks, and on the day fixed the last dose was taken.

given the daily progression, for the reason that there were no incidents of interest to record. From the first day to the last the progression as laid down was followed; and the last dose of the opium taken on the day anticipated.

After a trip on a sailing-vessel for the sake of his health my ex-patient returned to England only complaining, as is so often the case, of a sensitiveness of the respiratory tract. He is now engaged in a large provincial practice.

Case 3.—Dr. X. wrote to me, after meeting with a copy of my little book in Tasmania, to say that if I could treat him he would come right away home, as it had brought him a return of hope which he had previously given up. A few months later he arrived in Paris; and it was arranged for him to live at a nursing institution, where the son of the house was at that time the most competent assistant I had. He was to sleep there, and after breakfast was to occupy his time with French and violoncello lessons, and he was to come to me every evening for whist, and stay as late as he pleased.

The following correspondence constitutes a highly interesting human document, and it would be impossible by anything short of the original, to give as exact an idea of the psychology of the case. It was written, as has been said, by a medical man.

'Nearly a year ago' (he wrote in his first letter) 'I read a reprint of your paper on the morphia habit. As a morphia victim of some years' standing, though only forty-three years of age, and still in excellent health, it opens up a new hope to me. I am convinced that, under your treatment, I can escape from this frightful bondage. Alone, or under the ordinary treatment *I know* I cannot. Since reading your paper I have saved every possible penny of my small income, which with what little sum I had already accumulated will enable me in from four to eight months to journey to Paris and back, and maintain my family in my absence. But at any rate I implore you, as a matter of common humanity, as a brother physician, to reply to my letter at once, letting me know the average cost per week of board and lodging at the "Brothers' Retreat" that you recommend, and mentioning any time of the year that you would be unable to attend to my

case. It is life or death to me; and my future depends on your reply.

'If you should not be practising, I beg whoever opens this letter to refer it to your successor in this treatment that he may reply to me.

'For God's sake do not neglect this.

'Yours entreatingly.'

The next letter is from London.

'Several months ago' (he writes) 'I wrote you from Australia (or Tasmania) that as soon as I could arrange my affairs I intended to proceed to Paris to place myself under your care for treatment for the habit to which you pay attention. I have been in its grasp some eleven years, from a severe accident originally; but my health remains still good, though I have had warnings that I must break it off.

'I used in my first letter a false name, not knowing that my letter would reach you.

'In this letter I give you my true address and name. I graduated at a first-class medical school, but have been a . . . all my life. I am forty-four years old.

'I beg you to kindly reply soon to this letter, as I have come half way round the world and given up my profession for practically a year, as in reading your writings I am sure that your views are

the only reasonable ones I have ever seen, and that with your aid I can overcome it.

'This is literally a matter of life or death with me, and I trust that you can personally undertake my case, I going into some house such as you recommend. I know I cannot conquer it alone, or under any ordinary treatment, or without a physician who gives his personal interest and sympathy to the details.

'If you cannot do it, I must ask you to recommend me one of your best pupils or assistants; but I confess that it will destroy one half of my hopes if you cannot do it. Kindly inform

'Hopefully yours.'

I replied telling him that I was perfectly willing to help him in every way in my power, and received the following answer:

'I am much relieved to find from your letter, just received, that you consent to take me under your hands. I have most carefully read your writings; I know perfectly well that you are right, and that I could not possibly succeed if I had any free will or responsibility in the matter. As I am sure I can get through much of the time better if I can go to the theatre, etc., and go about—being of a very active nature, and constantly carrying on a

large and responsible consulting business in my profession, which, of course, I shall entirely throw aside when I come to you. I am glad you can accede to the idea of a constant personal attendance; only he must be a man that I cannot bribe, as I know I cannot hold myself responsible under certain conditions.

'I think you will not find me a troublesome patient. I am used to roughing it in all parts of the world. My only desire is to get over the matter as quickly and comfortably as possible.

'Yours truly.'

In my answer I told him I was quite willing to undertake his case if he would conform absolutely to my conditions; and I advised him either to go to St. Jean de Dieu, or to place himself as a boarder in a nursing institute I recommended where he could obtain a comfortable room, and could have as his attendant the son of the directress, who had acted in that capacity before for several of my patients, and whom I had found to be unusually intelligent and competent. I warned him, however, that his attendant would be in a certain way his keeper, and that although he would be free to go about as he liked, he would

have to submit to constant surveillance. In his reply he expressed himself as follows:

'You need not in the least fear any resentment on my part at any measures you may think essential for treatment. And I can tell you plainly beforehand, that when suffering for medicine, as I have done a few times in my life when the accidents that one is subject to in a wild country have cut off my supplies suddenly, I think I would commit any crime to obtain relief. And, indeed, I have ridden alone night and day through 200 miles of the most dangerous Indian country in the world to renew my supply. But I understand that you do not inflict such suffering, otherwise I would rather stay where I am, as miserable as it is to try to keep up as a semi-public character constantly at the head of large enterprises, and consequently being fêted and entertained when I only want to go to bed (with a book, as you most justly say in your paper on the subject). . . . My main fear is that while I may succeed in getting rid of the habit, there will be such a constant craving afterwards that in some moment of despair I shall fall back again.

'Yours sincerely.'

Having reiterated my encouragement, and assured him that the after-craving was a matter

which depended entirely on his own conduct, he came to Paris. I continue to give the account of the result of the treatment in the patient's own words:

'My dear Doctor,

'It being now nearly two months since my cure was completed, I will endeavour to give you a brief résumé of my feelings, condition, etc.

'*I have experienced not the slightest desire for morphine since I gave it up;* and to my astonishment, if it ever enters my mind at all, it is as something that in my present condition would only congest and benumb me. So that I do not feel that it would be pleasant even if it were not harmful to take.

'I shall preserve this illusion as long as possible. My strength is slowly coming back, though much impaired at present by a severe influenza.

'I expected to suffer much from want of sleep, and the first few nights after my cure did not get an hour's sleep. *But as soon as I obtained the galvanic battery* that you recommended me, and passed a constant current of 3 milliampères through the brain for a few minutes on going to bed, *I at once became intensely sleepy, and the same thing happens nightly ever since.* I had no belief in its efficacy in my own case, but it has certainly

succeeded, and I have not taken a grain of chloral, bromide, or other hypnotics since.

'I used to have periodical headaches, since my cure I have had none. The bowels, that formerly could only be moved by artificial means, are quite regular again. I have lost nearly all the fat that was rather marked in the abdominal region.

'Whilst reducing the morphia I suffered from constipation, as I have during all the years I have taken it.

'With slight exceptions I obtained no relief until I had given it up; since when I have a natural (never loose) movement about every second day.

'The whole world has taken on a different and brighter aspect to me: and I can only finish by saying that I am firmly convinced that you are the only person that could have assisted me to be cured, and above all *to have no desire for morphia left* in a reasonable time, and without experiencing any actual suffering or unbearable discomfort.

'Yours faithfully and gratefully.'

What follows is from fuller notes sent to me *six months* later.

'I began with an ordinary dose of 12 grains a day. For the first two weeks there was absolutely no discomfort (this was whilst reducing to

4 grains by the skin); a certain ennui only, due to the substitution of regular habits for the more careless life I led. Sleep and appetite, the latter rather poor for years, remained as usual. Then came two or three days' discomfort, the craving coming on before the morphia was due, and causing that restlessness that I believe to be indescribable by the person that has not experienced it.* *But after all it was only discomfort, and could be thrown aside and forgotten temporarily, if I could only get absorbed in some interesting occupation,* such as a game of cards or billiards. (This was between 4 grains and 3.) After this little hitch the reduction proceeded without any serious discomfort, though always a certain ennui, until I reached the point where you give up the hypodermic syringe and substitute a double dose of morphine by the rectum.

'This was a very agreeable stage of the treatment for me. The long-continued comfort afforded by the increased dose of morphia much more than compensated for the less active effect given. Fairly good nights were obtained by reserving nearly half of the twenty-four hours' allowance for the evening dose, but a little discomfort during the daytime.

* I find from my own notes that the reason of this was that the patient had neglected to pay attention to the bowels which had been obstinately confined for five days.

'As the day's dose diminished down to a few centigrammes, the discomfort became more marked, *but always endurable, as shown by the fact that my condition was never such as to prevent me taking a daily lesson in French and on the violoncello, going to your house and playing whist afterwards.* Indeed, I attributed much of the ease with which I got through the ordeal to following your advice in regard to keeping myself interested and busied as far as possible even when I had little inclination for it.

'The end of the cure was not particularly hard, except that for some nights I was troubled with a sleeplessness that was rapidly demoralizing me, when you fortunately recommended a constant current from a weak battery. I tried it without the slightest hope or belief that it would help me, but the result was instantaneous and constant. It put me to sleep in from ten to twenty minutes, and during the first few days of lassitude and weakness gave me from five to six hours of good sleep nightly. Later I slept naturally six hours; and since my return home, four and a half months after treatment, I sleep naturally seven or eight hours, and never read over ten minutes on going to bed. In the past three months the only drug I have taken has been two doses of bromide of potash. I had no looseness of bowels during my treatment, and since its completion have taken

neither medicine nor injection, they being perfectly normal. I have gained twenty pounds in flesh, though not about the abdomen, have my normal appetite of former times, and, excepting a decided sensitiveness of the respiratory tract, suppose I am as well and strong as I could ever expect to be at middle age. I do not find that indiscretion in eating or drinking produces any craving for sedatives, however uncomfortable I may feel.

'This condition of things I owe to you and am happy to acknowledge it. With a somewhat long experience of morphia and its habitués, I must express as my firm belief that the only possible way that I have ever heard of by which I could succeed in escaping from the use of the drug, as well as from all craving for it, was by following the principles you so forcibly and frequently laid down for me, *i.e.*:

> 'Gradual but voluntary suppression;
> Constant surveillance without restraint;
> Absolute truthfulness to you as my physician;

nor could I have carried these out without your constant encouragement and your insistence that success was plainly and certainly within my reach if I could only keep up the necessary patience and

strength of mind to fight off the tedium and feeling of weakness.'*

I will add only one detail that my patient omits, which is, that his virility, which was suspended as is usual in morphine habitués, returned in a remarkable degree after suppression.

Those who have experience of the morphia habit will understand how slight the discomfort felt by this patient was really, in comparison with what it otherwise would have been. It did not prevent him taking a lesson each day in French and on the 'cello, and he was able to play whist all the evening. I do not recollect now (for it is not stated either in my notes nor in the patient's report) for what reason he was unable to take the Turkish bath. Satisfactory as was the result, it might have even been better had he been able to do so.

* Writing later, he says: 'It is now more than a year since I completed your treatment; and I have been in perfect health since I left you, barring a decided tendency to bronchial and catarrhal affections, which, indeed, you warned me of. Apart from some cough medicine once or twice that very likely contained opium or paregoric, I have taken no anodyne since I saw you, nor have I had the slightest temptation.'

CHAPTER XI

THE following cases illustrate the differences in the result according to the possibility or otherwise of following the treatment in its entirety.

Case 4.—A gentleman, aged thirty, wrote to me from England, describing his case, and asking me to undertake his treatment. Eight years before he had had malarial fever in South Africa, with black urine, albuminuria, general œdema, followed by the most extreme emaciation and prostration, to such an extent that he had to be carried about. For some time he was also annoyed by phthiriasis. Returning to England to die, he picked up on the voyage home to a certain extent. But rheumatic arthritis now supervened, and the joints became contracted and ankylosed, besides being the seat of constant with periodically increased pains. The left knee became ankylosed at the right angle.

Three years afterwards, consulting Sir William MacCormac, this was broken down, the limb being straightened to the position of standing at ease, and one of the arms is now fixed at a right angle, the other assuming naturally this angle, but having slight motion of flexion and extension.

After the breaking down of the knee, the patient began the use of morphia; and his life was passed in going from one health resort to another with his nurses. Besides morphia, he became addicted to excessive quantities of alcohol, and, in driving recklessly under this influence, he was twice pitched out of his dog-cart on his damaged limbs. The inflammatory condition had been aggravated by gonorrhœa, and his health had not been improved by syphilis.

Two years ago he suffered from an acute attack of rheumatic fever, and was given such doses of salicylate of soda that the heart's action became extremely slow and imperceptible. The patient remained in a state of coma for ten hours. The doctor having given hypodermic injections of

atropine for this condition, this alkaloid was also used abusively until he took a tubeful of tabloids a day, symptoms of mental derangement being ultimately caused. He suffered more or less constantly with pain in the affected joints, and in unfavourable weather it would become unbearable.

The letter in which I was made aware of these facts was so strange and excited that I thought the case unsuitable for my plan of treatment, but advised that someone should be sent to me who was well acquainted with him and could furnish me with the fullest particulars of his case. A few weeks later his mother came to Paris, and her account of his unmanageableness was such that I would not hold out any encouragement: consenting to treat him, but without guaranteeing any kind of result.

On his way to Paris he was persuaded to put himself in the hands of a 'specialist,' who told him that the immediate danger was the morphia, and that he would allow him even more whisky to enable him to give this up. He had at this time 4 grammes of albumen per litre. Recognising

after a short time that he was not in the most competent hands, he came on to Paris.

I saw the wreck of what had been a good-looking fellow, a face and body puffed and bloated from alcoholic excess. Besides the symptoms already described, he was suffering from morning sickness, for which brandy was taken as a *medicine*. Whisky was pegged at during the rest of the day, and wine taken liberally at meals.

I declined to discuss the question of morphia until the last drop of alcohol had been renounced, the cessation of the added addiction being in such a case a *sine quâ non*. I felt convinced that my connection with the case would last at the outside but about a week; and, indeed, for about a week he trifled with the treatment, but at the end of that time I called one day when he was more than usually fuddled, and, as he told me afterwards, he felt so ashamed of himself that he took a sudden resolution, and a week afterwards he had given up all stimulants.

Six weeks later the albumen had disappeared entirely. The morphia treatment was carried out

on the usual lines, except that he was unable to take hot-air baths on account of a stifling feeling of the heart, although he had brought a portable apparatus with him. For a couple of months the progression went on; but when he had got to about half a grain he was taken with a painful subacute attack of his joints, and, thinking that the Paris air did not agree with him, left for Ostend to recruit. Instead of being away six weeks, as was intended, from Ostend he returned to London, relapsing as regards morphine, but keeping strictly away from alcohol. His face and body had resumed gradually a healthy appearance; he was able to put on clothes that had been too small for years, and his friends all considered the change in his appearance as miraculous.

Five months later he began to experience uncomfortable sensations about the heart, and once more he returned to Paris. On this occasion the treatment was renewed, and in the course of a couple of months he got down to a few centi-grammes of morphine by the rectum. I begged him to stay until entirely cured, pointing out how

surely he would relapse; but he was no longer afraid of pain, as I had found means to suppress that entirely; and he felt sure that he would be able to effect the remainder of the reduction by himself.*

In London he had two returns of the pains; and on each occasion he discovered that he had committed infractions of the treatment that had prevented it unawares, his food having been, without his knowledge, salted. On each occasion the pain disappeared as soon as this was rectified.

Finding a month later that he had again relapsed, he came back once more to Paris, as I hoped, until I should allow him to leave.

Besides his crippled condition, which always made walking difficult, a swelling had developed on one of the flexor tendons of the foot, which

* He had become, as I insisted, a semi-vegetarian, the only animal food taken being fish. This had led to a great decrease in his pains, which, together with the impossibility of exercise, constituted the great difficulty of treatment. The cause of their final disappearance was the suppression of salt, which I prescribed on account of the results I have seen by this means in other painful cases.

was painful on pressure; so that he was unable to relieve his restlessness even by walking in the room. He was then taking 2 grains of morphia by rectal injections. In ten days these were suppressed without discomfort; but the day after he felt an uncomfortable restlessness, and I gave him 20 drops of laudanum. He admitted that he had frequently had similar restlessnesses as a result of his rheumatic condition and enforced immobility, so that it could not, according to him, be fairly ascribed to craving. To indulge him I allowed him to have a small dose of heroin; but I found that in the course of a few days he was increasing the dose, and he admitted looking for it with greater desire than he had ever experienced before for morphia. It caused also great disturbance of sight, and a condition of subdelirium. It was stopped, and a small dose of meco-narceine was given instead. But he was not yet destined to be entirely cured, for the nurse let him fall out of bed on his worst arm, and a few hours afterwards there was considerable local inflammation and swelling, with a temperature of 103°. Fearing

mischief, and in view of his restlessness and sleeplessness, I gave him half a grain of morphia hypodermically, with the result the next day that the temperature was normal, and the joint, which had been wrapped up in glycerine of belladonna, was no longer tense and tender. As I would allow no more morphia, he had to fall back on the meco-narceine solution, and the next morning I found he had taken about a grain. For some days this was continued, and my patient then declared that he must go back to Brighton on important business, being convinced that he could give up the meco-narceine by himself in the course of ten days. It should be noted that, with the exception of the two occasions above-mentioned, *there had never been the slightest return of pain, whereas for years previously he had never been a week at a time without experiencing it*, especially in bad weather, such as we had been constantly having.

Much against my wish the patient left for Brighton, promising to write for guidance if in difficulty. For three weeks there was no news, and then came a telegram saying that he was

dangerously ill, and calling for my presence at once. On arriving in Brighton I found that he had relied upon having a sufficient provision of meco-narceine, but that it had run out unexpectedly, and it had been impossible to procure any. I had felt sure that whatever folly was committed he was safe, with the albumen before his eyes, from returning to whisky; but this is what he had actually done. He had, when I arrived, been five days without meco-narceine, steadily drinking whisky; and his heart was in such an unsatisfactory condition, that the doctor who had been called in would not answer for consequences. Half a grain of morphia was given to enable the whisky to be stopped immediately. The face was looking bloated and distorted, and the urine was slightly albuminous. The next day the meco-narceine was resumed, and I stayed a fortnight until it was nearly suppressed.*

* I do not consider this case as a complete success, for when I was obliged to leave the patient he was still coquetting with the meco-narceine. That there was no real need for it is proved by the fact that he did not have any whilst under the influence of the whisky. I expect to hear

It is worthy of note that in the course of the treatment he had lost over two stones of unhealthy fat.

This case is one of the most remarkable I ever met with. It took a long time to obtain the final result, such as it was, the patient being handicapped by his crippled condition, which condemned him to immobility, and his incapacity to bear hot-air baths. I did not, indeed, at first expect to get any result at all. This as well as the preceding case was also remarkable for the excruciatingly painful feelings caused occasionally in the head by certain injections of morphia.

Nearly every habitué experiences sometimes a painfully constrictive feeling after injections which are supposed to have been thrown straight into the veins, but in these cases the agony was acute, the last patient remaining speechless and paralyzed and only able to use signs to express his anxiety.

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that relapse has again occurred, beginning with alcohol. It is probable that the abuse of atropine had something to do with the failure of will at the end. I have met with the same thing in patients previously treated by the so-called 'Gold Cure,' which, I am assured, consists really of the use of strychnine and hyoscyamine.

In this case even the result obtained was at first absolutely unhoped for, but when the patient had given up the alcohol, and his albumen had disappeared, the courage with which he continued the treatment made me hope that he might be weaned without suffering. For although when away from me he relapsed, there was no nonsense when he came back, and he did not make his discomfort a pretext for delaying progress.

I was greatly disappointed that he should feel any discomfort, but instead of grumbling he would seek to console me by assuring me that he had had such discomforts independently of morphia, and that although the treatment adopted had put an end to his rheumatic pains, the restlessness he experienced was probably due to this cause.

The difficulties in the next case consisted of the extreme duration of the addiction, the invincible insomnia and the shattered state of the health, which was as unsatisfactory as possible.

Case 5.—The patient, who was a high official in one of the Central American republics, began the use of opium twenty-three years ago for super-

orbital neuralgia, it having been given him by a New York specialist who guaranteed he would cure him for one hundred dollars; and the bargain having been accepted, gave him a tablespoonful of a mixture, which took away the pains as if by magic. 'J'ai cru,' said the patient, 'que c'était un spécialiste admirable.' He found, however, that he was obliged to increase his dose, and drifted into the habit until three years later, when he was taking 24 grains a day.

At this juncture an attempt at suppression was made; and as a result 5 grains of morphia were substituted. Ten years ago the daily dose was 24 grains of morphia, when an attack of pneumonia occurred during which it was reduced to 12 grains, at which it remained.

Continuing to enjoy good health, he did not make any further attempt at giving it up; but at length symptoms of dyspnœa set in, with stomach troubles, that made matters less pleasant. Sleep at night had now become a thing of the past. It was impossible for the patient to repose in bed; and he sat up in his arm-chair reading all night.

In the daytime he dozed in the intervals of his receptions. He did not lose his mental vigour or memory. Finally, however, the gastralgia became chronic and his legs began to swell.

When I saw him the swelling had disappeared, but in other respects he was the same as he had been for the last three years. The insomnia was absolute at night, the little sleep he had consisted of intermittent dozes in the course of the morning. There was also the dyspnœa, which caused him to pass the night in his arm-chair as already recounted; painful dyspepsia, which made everything but coffee and milk difficult to take. There was great emaciation, his weight being 57 kilos, and extreme exhaustion. Besides this he suffered from occasional attacks of malarial fever.

He was to have placed himself under my treatment at once, having left Central America for that purpose only; but, being seized with an attack of fever, he was induced by his friends to call in an eminent professor of the Paris faculty, who declared that reduction of morphia in such a state of emaciation would mean death, but that when a

certain amount of flesh had been put on and the general health improved, the morphine could be diminished without danger. The patient objected that the emaciation was caused by the morphia and that he ought to pick up flesh by leaving it off; but the threats of death being repeated, and it being promised that he should gain a pound a week by the treatment, he allowed himself to be persuaded.

For seven weeks the patient's health continued to decline, and his weight to decrease to 55 kilos. Another professor now consulted gave it as his opinion that it was a very difficult case, and advised hydrotherapy; but the patient did not like the idea, and then decided to place himself in my hands forthwith.

He had increased from 10 to 12 grains of morphia, and had lost a corresponding number of kilos of weight during the preceding two months.

On commencing treatment he was taking the 12 grains by the mouth, and in one dose only. This was to be taken at 8 a.m., $\frac{1}{3}$ of a grain

to be diminished daily. On November 1 he had reduced as per programme to $7\frac{1}{3}$ grains, and now entered the Maison St. Jean de Dieu.

November 10th.—Sleep, which had been better since the beginning of the treatment now came rarely before 4 a.m.

November 12th.—$1\frac{1}{2}$ grammes of hydrate of amylene, repeated every two hours after 12 p.m., have given six hours' uninterrupted sleep.

November 17th.—The patient feels wonderfully well and is at 2 grains. Stomach better than for years previously, digestion good, no craving, sleeplessness remedied by hydrate of amylene. The patient had all the time been taking digitalis and bicarbonate of soda.

November 19th.—Morphia, $1\frac{2}{3}$ grains. The patient began to complain of discomfort; and I was most anxious to slow the progression, but his friends (and whenever I called upon him I found him surrounded by half a dozen of them) were all for 'firmness.' He was, therefore, constrained to continue at the same rate of reduction. The time for giving the morphia was now changed to 9 p.m.

Until November 25th the progression was kept up in the same manner, although extra doses were given when the patient would bear it no longer. Bromide of potassium was now tried, but the next day the patient was miserable, sitting almost in the fire to keep warm.

November 25th.—Morphia, 1 grain. From this date, when the patient was taking 1 grain of morphia, until November 30, it was decreased by $\frac{1}{6}$ of a grain daily, cannabis indica being given in increasing doses from 30 to 70 drops, and laudanum in rectal injections to the amount of 25 drops on the last two days.

December 1st.—The patient was to have no further medicine of any kind, but to rely on the hot-air bath; but he could not bear the feeling of suffocation, and the attendant gave him a small dose of chloral.

December 3rd.—He had slept very little, but he was free from craving.

Two days later he left the establishment, still suffering from insomnia, and three months later I heard that with this exception he was doing well,

having recovered his health and his ability to sleep, when he could manage it, on a couch.

Most of the symptoms in this case presented something unusual. Instead of feeling inconvenienced by the suppression of the morphia from the beginning, as is often the case when moderate doses are taken, up to a certain point not only did the appetite and indigestion improve, and the dyspnœa disappear, but sleep returned and the patient felt better in himself. Of the different drugs the hydrate of amylene seemed useful, but the dose soon became insufficient. Sulfonal had no effect in 2 gramme doses. Nitro-glycerine and nitrite of amyl were but little tried. Coca was used on one occasion with very disagreeable effects. A couple of hot baths were given with pleasant effect, but a hot-air bath of an hour's duration on the last day but two caused no perspiration, and consequently made the patient uncomfortable. It is worthy of remark that during the whole time there was no perspiration, a symptom of morphia abstinence which is nearly constant. Bromide of potassium had a distinctly

unsatisfactory action. Cannabis indica, another of Dr. Mattison's favourite remedies, gave a certain amount of relief. If I had ventured to use it in the doses recommended by this author, a drachm of the fluid extract repeated frequently, it might have done better.

Although heart tonics and bicarbonate were given regularly, and Turkish baths, or rather the hot-air bath, tried several times, the treatment was not applied as methodically as at present. The patient was under my care more than ten years ago, and I give the case on account of its intrinsic interest rather than as an example of the success of any particular treatment.

The most interesting question arising out of this case, in my opinion, is that of the conduct which should be adopted when the patient begins to complain of suffering. I think myself that when a morphine habitué has given proofs of firmness and goodwill, he should be credited with good faith and encouraged for what he has accomplished, instead of being suspected of a desire to relapse. To put on moral pressure, to make a

man do a little more when he has really done his best, and has arrived at the limit of endurance, is unwise. One of the great secrets of treatment in a morphia case consists of knowing when to take the initiative and counsel slower progress. If the progress has been too fast, one may stop the progressive reduction for a day or two, and by slowing in proper time all suffering may be obviated and a temporary increase, which is a bad precedent, prevented. It is better for the medical attendant to prescribe the reduction than to be obliged to yield to the patient's requirements.

CHAPTER XII

COCAINE is generally considered as a grave complication, and further on I give a case illustrative of the impossibility of dealing with an impulsive patient. In some cases, however, it does not increase the gravity of the prognosis at all.

Case 6 is that of a medical man who was holding a hospital appointment in England. He was taking cocaine as well as morphine, and believed firmly that there was an insuperable difficulty about giving up the former. I had told him in my first letter that when it is associated with morphine there is a cocaine impulsion, but no craving upon suppression of any importance, and that the only advice I could give in this respect was to quit it at once, getting himself placed under restraint if he could not conquer. When the cocaine had been stopped I would advise him

further. The following letters are the only notes I have of the case:

'I can't tell you,' he begins, 'how grateful I am for your letter received this morning. It is indeed good of you to take such trouble. I have been almost on the point of suicide these last few days, thinking that there was *no* way out of my bondage. I hope to drop the cocaine at once, or at least in a week. I have given your letter to our medical man and asked him to act on it. How I wish I could be under your care, I have such absolute faith in you. As you say *re* cocaine does make one worse. I have never taken it by the skin. When I drop the cocaine what shall I do *re* chloral and morphine? I now only take the morphine by mouth. Will you let me know? Please don't forsake me yet; my only hope is in you, only unfortunately I can't well come over.

'I shall leave the cocaine in the doctor's hands, and take my usual dose of morphine and 25 grains of chloral till I hear from you.

'I hope to write soon that I have dropped the cocaine. I can only offer you my most heartfelt thanks. God knows I want to become once more what I was, and I feel it is only you that can do it, so please don't drop me.

'I have such implicit faith in you; your book

gives me faith because one can see you know the *ego* of the morphine habitué.

'Thanking you a hundred times, I am,

'Yours in gratitude.

'P.S.—Does smoking do any harm?'

The next letter reported the first success:

'Thanks to you and my faith in you, I have taken my last dose of cocaine, and my father has thrown in the fire all the cocaine I had. I believed your words that it was a "mental impulse," although I would not have believed any-one else, and have found, I must say, little trouble in giving it up. *I can't understand it, as all the books I have read speak of it as the cocaine fiend, and give one the idea that it is almost impossible to break it off.**

'Will you, sir, tell me what next to do? I am now taking 30 grains of chloral and bromide every night, and about 10 or 12 grains of morphine in two doses during the day.

'Can I break off the chloral first? I am

* When cocaine is the superadded addiction, there is usually no craving on giving it up. On the contrary, the morphia becomes all the more satisfying, not being physio-logically antidoted. It is when cocaine is the sole or primary addiction that there is often great difficulty.

anxious to do it, as my people know about it, and then tackle the morphine. But I must leave myself in your hands, only, if possible, I should like to break off the chloral first. I have done it before by bringing it down to 5 grains per night, but then it was the cocaine that started that again.

'I hope you will stick to me now. I have so much faith in you, and you alone.

'Already I am beginning to feel once more a man. I can only thank you, and from my heart ever think of you as my saviour.

'Yours gratefully.'

I gave him the necessary instructions in reply, and his next letter was as follows:

'Dear Sir,

'I have not written before because I have not been able to follow your programme as I should wish. I have given up all but the morphine, but I can't reduce that under 4 grains a day, 2 in the morning and 2 at night. Can you help me in any way, as I am most anxious to do away with it once and for all. May I ask two or three questions:

'1st. How many pipes of tobacco can I smoke during the day? I have given up cigars. Had I better only smoke in the evening?

'2nd. I find the bic. soda does relieve the sink-

ing feeling at the epigastrium, but only for a time. I am rather anæmic; may I take iron? and if so, in what form?

'3rd. I take three or four tabloids of tetronal at night; had I better take them with the night doses of morphine? Will a weak whisky and soda at night do any harm?

'4th. Had I better get tabloids of morphine, as the local chemist is not, I am afraid, very exact? Sometimes he gives too much and sometimes too little.

'I wish I could reduce from the 4 grains. Please excuse me bothering you so much, but you are the only one I have any confidence in; and even now I am another man, thanks all to you. Is there really a physical cause for my not being able to reduce the morphine as I did the cocaine? That (the cocaine) was so easy. I find a craving for the morphine which I did not in giving up the cocaine. I find my appetite excellent, but can't go long without food; in fact, sometimes after a good meal I want something in about two hours. Had I better take some light nourishment with milk?

'I do hope you won't give me up just yet, but I feel very sensitive about troubling you so much I will try my best to carry out your instructions it is such a help to receive a letter from you.

'Yours always in gratitude.

'P.S. Does a large dose of morphine produce similar feelings to a want of morphine? I have an idea it says so in your book.

'May I not read, say for twenty minutes, in bed? The reason I ask is it makes me a little sleepy. I quite understand that longer reading would produce a want of morphia sooner.

'Have you written any other books on this subject?

'Although a morphine habitué, believe me I tell you the whole truth.'

It was two months and a half before I heard from him again, after sending the necessary instructions, and the following was his last letter:

'I would have written sooner, only I thought it as well to wait a little before I report progress. By next Friday I shall have been five weeks since the last dose of morphine. I have not forgotten my promise to write to you. Would you like me to write my experience from the commencement of the practice, or only a few notes on the treatment? I shall be only too glad to do anything you require, as I have to thank you for getting me out of it; so if you would like the whole of my experience, please let me know. I am afraid I can't supply details of the treatment as I should wish,

as I became too bad to keep notes ; however, I have notes of the last week.

'I have taken, as you advised, Sod. Bic. p.r.n. and Digitalis, but Val. Am. only a few times, as I can't say I experienced any help from it. I am speaking now of my experience during the last four weeks since breaking off the habit. I do not take stimulants ; *my chief difficulty has been, as you warned me, not to exceed at meals. I find if I do that I get an almost intolerable uneasiness ;* however, that is getting better, and I only have it sometimes, chiefly in the early morning. I sleep well, six to eight hours. I can now take active walking exercise, although at first I thought I should never be able to do so.

'My chief object in writing you now is to ask what you would like as regards my experience. Please don't think it will be any trouble, as I am most anxious to show you my gratitude even in a small way, as I can't in any other.

'I still have very loose motions, not exactly diarrhœa, but still troublesome. I clear out the rectum daily with hot enemata. Do you advise me to go on with this ?

'I also have a great many gum-boils—is that anything to do with the past habit ?—also occasionally a chilly feeling, particularly in the back, often accompanied with attacks of sneezing. I don't feel quite ready for work, as I wish to avoid all

chances of relapse, and I would rather wait a little longer until I get quite normal. Is it a fact that for twelve or eighteen months one is liable to "certain tides of recurrent craving"? (Allbutt's "Medicine," vol. ii.)

'Apologizing for troubling you with this rather long letter, and again thanking you most sincerely for all your kindness, which I shall never forget.

'Yours faithfully.'*

Case 7.—A young medical man, who was holding a Government appointment in Australia, had become addicted to morphine and had given up all hopes of cure But accidentally coming across my book, he thought I might be able to help him

* I have had some hesitation about publishing the preceding letters textually, but it must be remembered that in each case the patient was a medical man, and they are therefore in the strictest sense medical observations. Some may think that the complimentary passages should have been omitted, but this would not have attained the desired end, as it would have been necessary to explain that some too-flattering passages had been left out, in order to escape the suspicion of suppressing qualifying reservations, so giving undue importance to these little exaggerations of grateful impulse, which the reader will no doubt have discounted for himself.

and decided to return home. His mother was greatly alarmed at seeing his condition, the more so when he declared that it was necessary for him to go to Paris for treatment. No member of the family knew of his addiction, and this step made them more anxious, as they could not imagine what the malady could be that necessitated his seeking relief abroad. On arriving in Paris he went to St. Jean de Dieu, but after a fortnight I left for the seaside, and he accompanied me there. It was a simple case of morphia addiction, and my usual method of reduction was applied. I was obliged to return, however, to Paris when he was still taking $\frac{1}{4}$ of a grain, so that it was by letter only that I became acquainted with the final result. Here is an extract from his letter:

'I did not press my reduction after you left, as I had at any rate to wait, so I took about a week to get down to nil from $\frac{1}{4}$ of a grain. I was two or three days on $\frac{1}{10}$ grain, and felt and slept fairly well, so I was rather surprised on stopping it to have a beastly night. After that, though I did not suffer I had no sleep for four nights. On the fifth I took 90 grains of Pot. Brom. in two doses;

it had no effect then, but the next night I slept well. The next two nights I was travelling, and did not sleep at all. Since then I have been all right in that respect, though I cannot sleep more than six or seven hours. Since I have been laid up with a most frightful cold and with three relapses for more than a month, having passed ten days in bed. *I am simply full of uric acid,* and always feel tired. I am troubled, too, with flatus and other discomfort about the bowels. For a day or two after I left off the morphia I had severe pain about the sacral region, extending down the outer thigh. This returned about a week ago, but went on my taking a dose of antipyrine.'

Some time before, his mother had written me the following note informing me that all was well :

'I am most thankful to be able to tell you that my son, Dr. ———, has come back from France quite cured. He looks and is a different being. Words cannot express my gratitude to you. For years before he came home from Australia I was most miserable about him, knowing that there must be something terribly wrong with him. When he returned, he looked as if he were dying ; and now,

thanks to your skill and kindness, he is a new man, feeling in better health than he has done since he was a boy of nineteen.

'Most gratefully yours.'

My ex-patient is now a popular country practitioner. I am sorry that I cannot give a better history of this case, but I relied upon the patient to keep notes, and this being left to memory was ultimately forgotten. The main points, however, of the case are the following: that the patient was wrecked in health and had given up all hope, expecting to die in an obscure colonial town, ashamed to show himself at home, or to admit what was the matter with him. Accidentally finding my book, he takes heart, returns to England, in what condition his mother's letter states. It also tells the sequel.

CHAPTER XIII

In the cases described in the ensuing chapter I come to a class of patients who are most difficult to treat. Professing to be desirous of getting cured, and begging to be treated, hysterical imitations of craving are soon manifested, and are most difficult to manage. I have often been asked upon what grounds I can pretend to decide that a patient who is complaining is not really suffering. I might simply reply that it is a matter of judgment, and that I have had enough experience to form such a judgment; but there is a criterion which is more reliable. When a patient complaining of great suffering on the doctor's arrival, with every evidence of excitement, calms down, and after asking for morphia two or three times, entirely forgets for several hours to renew his request, it is fairly good proof that he is not really

suffering. It is on such grounds, and on others which I give that I class the three following in the hysterical group.

Case 8.—A young man aged twenty-nine was sent to me by Professor Hallopeau. Five years before he had had tuberculosis and pneumothorax. He had taken morphia three years altogether, and had been demorphinised five times. Two months before he was sent to me the morphia had been suddenly cut off, and on leaving the institution in which he had been treated he had immediately relapsed, declaring to his father that he would always return to the drug if treated by compulsion, but that he would consent to a gradual reduction on the principles laid down in my book.

His mother warned me that he could not be believed; that he was the most vicious being in existence; and I afterwards found that he took a positive pride in keeping up this reputation. His body was covered in sores, resulting partly from abscesses, and having all the appearance of *rupia;* and the existence of syphilis was proved by

other symptoms, amongst them destruction of the nasal septum. He refused to submit to anti-syphilitic treatment, in order to prevent the sores improving and the numerous abscesses healing, so as to continue to have a pretext for keeping up the morphia.

To begin with, the cocaine was suppressed in a few days, the morphine had been reduced from 6 grains to $\frac{1}{5}$ of a grain, and he was beginning to put on flesh (the emaciation had been excessive). At this moment my assistant unfortunately allowed himself to be persuaded to give him a small dose of heroin, and in a few days the patient became quite unmanageable, having reached 8 grains and developed a condition of semi-mania and agitation. I stopped the heroin at once, allowing 4 grains of morphia to replace it; and after a fortnight's resistance, rectal injections being substituted, the treatment was organized in a much severer manner. He was supposed to be undergoing the cure voluntarily, but after a week it was discovered that he had all the time managed to deceive. Each time the

rectal supply of morphine was given he had slipped the cannula off the syringe, and fixed it to a hypodermic needle previously inserted in the skin of the abdomen. When this was discovered the possibility of its repetition was guarded against, and the treatment was henceforth carried on without reference to his recriminations. *In ten days more the morphia was suppressed without his knowing it.* He acknowledged that he had had no feeling of craving. But notwithstanding this he felt an irresistible impulse to take any drug that might be left at his hand.

For two months, thanks to constant surveillance, he remained without taking any drug but chloral, and, as is always the case, the physical conditions which had made it seem as if recovery were impossible, improved literally *à vue d'œil.* Even medical men—and he saw a good number—who were not thoroughly acquainted with the morphia question were astonished at the change. All the time, however, although fully recognising the certainty of physical breakdown and mental bankruptcy, he thought of

one thing only, and that the possibility of escaping from restraint, and procuring in secret a supply of his alkaloids. How it was managed exactly is not sure, for his attendant was made drunk, and although he declared he had not left his charge a moment, the patient returned minus a gold tooth-plate, which he had pawned (he was was not allowed any money), and manifestly under the influence of cocaine and morphine. The provision was exhausted on the following day, and the patient, who had violently denied procuring it, acknowledged and even attempted to exaggerate what he had taken, in the hope that decreasing doses would be allowed him during the next few days. This was not done, and for another month things went on smoothly, the restoration to health proceeding miraculously, when he again returned in a state of cocainism. I do not give this as an example of the value of my methods, for all that I was able to do was to deprive him of morphia without suffering. It was hoped that forced suppression having proved so useless, a cure by re-education of the will with the patient's consent

would be more successful. But as it turned out it was impossible to keep him consentant, and in the end the temporary suppression was carried out in spite of his resistance. In this case, however, I consider that the sole hope of success is in the forcible prevention of relapse for a prolonged period.

Case 9.—A lady, twenty-eight years of age, voluntarily submitted to be treated in order to please her protector; but when the morphine was getting low, although she did not ask for more, she manifested every hysterical symptom imaginable to force my hand. It began by hysterical vomiting and anorexia.

The gravity of this condition not having been considered by me as a sufficient reason for moderating the treatment, a consultation was asked for with Professor Raymond, who endorsed my statement that it should be continued as before. As the progression continued, the intention of returning to morphia was admitted, the bitterest complaints made as to craving, and symptoms of extreme hysterical agitation developed. Fortunately all the

servants recognised that it was their interest to prevent their mistress relapsing, and combined to co-operate in the treatment; and the different doctors she insisted on seeing, with one exception, declared that the treatment should be carried through. To counteract this rather strange exception, I fortified myself by a consultation with Professor Labadie-Lagrave, and henceforth no further interference was allowed, and the progression was continued mercilessly. Not that there was any real suffering; but a refusal to give a supplement of morphia to relieve the terrible craving that was complained of would throw my patient into the most violent excitement. On one occasion in her anger at not being able to have her own way, she very nearly managed to drown herself in a large American bath. Yet, after being received with speechless indignation, when it was not with tearful reproaches, I could always manage to excite her interest; and ten minutes later she would be gaily talking about some absorbing matter—toilette, jewellery or the races, or perhaps the progress of my other morphia cases, in which she took great interest.

She recommended to me for them 'the greatest firmness.'

The complaints of 'craving' would be repeated, at first, from time to time; but after she had forgotten them, two hours would often elapse without their being remembered. The reduction was carried out under these conditions, imaginary extra doses being sometimes accorded, but the morphia was given up as per programme. Unlike the next case to be related, when she recognised she was cured she was most grateful.

Case 10.—A lady aged fifty, but looking seventy years of age, sent to me by Dr. Bérillon. She was covered with abscesses, she had scarcely a tooth left in her head, the urine was slightly albuminous, and she was in so great a state of prostration that her ordinary medical attendant in the suburbs did not expect her to live, and looked upon her removal to Paris as most dangerous. Before coming under my care the morphia had been kept within bounds to a certain extent by her doctor, and she was then only taking 12 grains. In this case the same thing occurred exactly as in the

previous one. When the last hypodermic syringes were reached, the patient, who was resolved to compel me to return to larger doses, manifested all kinds of hysterical symptoms, and claimed to be suffering from the most acute craving. She had begged me on her knees not to delay the commencement of her treatment, at first, when alarmed about her condition, for there had been some question of a delay for a few days. But, as occurs in these hysterical cases, when the morphia was reduced to the period of rectal injections, in which period there is less euphoria and less craving, she became loath to give up the syringe, and wanted, as a fact, not to renounce all treatment, but to order the progression herself, with me to countersign it. She had already been treated by *dozens* of other doctors, some of them of the very highest eminence, who had been compelled either to look on or to throw up the case as soon as she had set herself seriously to harass them, and she did not intend to allow herself to be constrained by me any longer than it suited her inclination. Supported, however, by her husband,

she really took what had been arranged, thinking all the time that she was working her own sweet will. She had given up the morphine entirely for three weeks before she had any idea that she was near the end.

Here the strange perversity of the hysterical temperament was fully shown. For, tired at last of carrying on the comedy of a scene each night before I would allow myself to give the (imaginary) extra morphine, I informed her one evening that she had taken none for three weeks, and that I would not lend myself to this nonsense any longer. Instead of being pleased she became simply enraged, and, having recovered her health, persuaded her husband to take her home. A few days later she was again taking large doses of morphia, and again sent for me; but I refused to treat her otherwise than where I had placed her, and six weeks after she was found dead in her bed from an overdose of chloral.

There are several points of interest in this case. The first that, notwithstanding the patient's protests of craving when she was aware of what she

was taking, when this knowledge was kept from her, she was cured by my plan without discomfort. The second is the fact that in the morphia habit, however bad the physical condition, recovery is possible if the morphine is given up. It shows also how useless it is to hope to cure a patient permanently against her will.

CHAPTER XIV

ALTHOUGH in a properly ordered weaning, in the case of a person otherwise physically and morally healthy, the treatment that has been described will amply suffice, in some cases the patient is not able to employ the means indicated, or is desirous of being cured in too short a time for it to be possible without slight discomfort.

Certain patients cannot bear the application of the hot-air bath, and I have had several who could not tolerate even the smallest dose of sparteine or digitalis. I have even met with one lady who could not take even the smallest dose of bicarbonate of soda without pain in the bladder.

It is therefore necessary to apply supplemental means of relief for exceptional cases.

The great value of the HOT-AIR BATH has been already insisted upon in the course of this volume ;

and I have in a former chapter reproduced a certain number of passages from different pamphlets and papers in order to show how persistently I have recommended it as one of my means of treatment. I have, however, entirely omitted hitherto any mention of a really important paper devoted entirely to the therapeutics of sweating which appeared serially in the *Revue de Clinique Thérapeutique* in 1889, and in which I collected all the evidence that could show by analogy how eminently the hot-air bath was suitable in the morphia habit.

It has been pointed out that during the suppression of morphia, and also afterwards, there is, if the patient be not strictly obedient to directions, at the same time a state of nervous depression and of irritability. Discomforts which are scarcely felt if this condition is remedied are exalted when it is not into more or less distressing sensations. This condition is chiefly kept up by a too liberal diet at a time when everything indicates the propriety of a comparatively abstemious régime. Abstemiousness is manifestly the best remedy; but besides this any means of treatment not otherwise objection-

able that mitigates the consequences of a too liberal table would be indicated. And especially if it combines in its action the apparently incompatible properties of tonic and soporific. Now the Turkish bath is all this, an admirable and immediate tonic, a marvellous sedative, and the only possible means of rapidly counteracting the effects of over-indulgence.

To give the opinions of some of the most eminent members of the profession. Sir Benjamin Brodie and Sir Erasmus Wilson both recommend the hot-air bath for indigestion, and Professor Sidney Ringer especially mentions its use in preventing unpleasant consequences for those who have dined too well. For Dr. Le Gay Brereton it is the best of tonics and sedatives. If one enters the bath exhausted and tired one leaves it fresh and fit; if restless and disinclined for sleep, it becomes a soporific. Amongst its other virtues is the property of raising depressed spirits and 'giving heart.'

It will be seen by analogy how greatly the bath is indicated in the treatment of the morphia habit,

where the symptoms are so largely due to indigestion, exhaustion, restlessness and irritation.

The same authorities furnish me with an answer to every objection that can be brought against the bath in particular cases.

It is often objected that the Turkish bath is unsuitable in diseases of the heart, but in many cases, with intelligent patients, I have no hesitation in at any rate essaying it. Sir John Fife declares that cardiac patients often derive unhoped-for benefit, and that the hot air inconveniences the heart much less than would an ordinary hot-water bath.

Another objection that is sometimes made is the danger of congestion of the head. Dr. Sheppard, the author of an interesting pamphlet on the subject, says that stout full-blooded people have often expressed to him their fear of a stroke, but he declares that there is no reason to fear any such danger. I will go even further. When the bath is properly taken, there is, during the stay in the hot-air room, an illusion of the hyperæmic effect of morphia, but this is caused not by an excess of

blood in the brain, but by the transmitted sensation of heat. On the contrary, the turgescence of the skin relieves internal blood-pressure, and when perspiration supervenes the fall of tension is even more marked. The Turkish bath, then, instead of congesting is decongestive.

An error that is equally common is the belief that forced perspiration of this kind is weakening. Dr. Carpenter, the eminent physiologist, says that if one is subjected to a very high temperature without making any movement, one does not feel any loss of force. On the contrary, strength is increased. Dr. Ringer recognises that the hot-air bath is a true tonic—that is, a means of increasing destruction and reconstruction of tissue, the latter remaining in excess.

What precedes is a résumé of the second part the paper I contributed in 1889, the first part of being devoted to researches concerning the use of the bath among the ancients, during the Middle Ages, and by different races of people at the present day.

I wish by these references to show clearly how

thoroughly and how fully I have appreciated the value of this means of treatment, and so to refute in advance the contention that I had only mentioned it incidentally, without recognising its full importance.

I have, in reality, studied this matter most carefully, and the only point in connection with the sweating of morphia habitués that I had not noted is the fact of its association with the elimination of oxy-di-morphine.

Marmé of Göttingen sees in the oxy-di-morphine the cause of the craving, and finds it in the perspiration of morphia habitués, although he does not, as far as I know, recommend the hot-air bath as a means of treatment.

I, on the other hand, whilst constantly pointing out the value of the bath, have not concerned myself one way or the other with the question of oxy-di-morphine. The fact of its presence in the perspiration by no means proves that the oxy-di-morphine circulating in the blood and causing the craving can be eliminated by forced sweating; it may be that it is the elimination of the oxy-di-

morphine that causes the sweating. No doubt the action of the bath is complex; but the toni-sedative effect of the hot air has always appeared to me to be its most important factor.

These are the facts of the case concerning oxy-di-morphine and the use of the hot-air bath; and they form the most complete refutation to any claim for the invention of a method of treatment founded upon the discovery of oxy-di-morphine in the perspiration and consisting of the application of the hot-air bath.

I repeat again that the recognition of oxy-di-morphine belongs to Marmé of Göttingen.

The recommendation of the hot-air bath is mine; and the fact that I have not concerned myself with the presence or absence in the sweat of oxy-di-morphine has not made it any the less efficacious in my hands, nor any the less part of my method of treatment.

I will say in conclusion that the paper to which I have been referring was not historical and critical only, but that there was a very special mention of the use of the Turkish bath in the

morphia habit. The case is quoted of a patient who went daily to an establishment of the kind, where he passed all his mornings; and it is especially noted that the sensation of severe craving disappeared entirely in the bath, reappearing afterwards in an attenuated degree, when other means sufficed to relieve it. That this was not an isolated case, but my regular practice at this time (1889), is proved moreover by the fact that it is mentioned that other patients were being so treated, some of whom attempted to deceive me; whilst there were others who may have been trying the effect of the bath honestly, but of whose good faith I was not sufficiently sure to quote them as successful cases.

TRINITRINE I formerly used much more than at present, and it was not until later that I learned that it had always been the remedy of the homœopaths for the opium habit. I did not employ it as a heart tonic so much as a means of reproducing in a milder degree the feeling of euphoria.

It is useful where there are symptoms of chilli-

ness, and in suitable doses gives rise to a feeling of warmth and a faint illusion of the hypodermic injection. When taken until its physiological action is produced we can obtain a break in the monotony of the craving; and, supposing that from the time the uneasiness first appears until that fixed for the injection a couple of hours have to be passed, they may be broken up into periods of ten minutes of craving, with five-minute intervals of comfort, which is far less distressing than two hours' absolute misery. The compound trinitrine tabloids of Burroughs and Wellcome are elegant preparations, and the addition of a small quantity of nitrite of amyl renders them more efficient.

NITRITE OF AMYL and ISO-BUTYL NITRITE have the same properties as trinitrine, but in a more powerful, rapid and ephemeral degree. One of my patients carried a small bottle of the first in his pocket, which he smelled at repeatedly, and to which he attributed his recovery. Like trinitrine, they are not tolerated by everyone, and should be used with caution wherever there is organic or

nervous trouble about the heart; as in angina pectoris a small dose may do good, but a large one often aggravates the evil.

BROMIDE OF SODIUM, or the combinations of the bromides of sodium and ammonium, are recommended by Dr. Mattison as a routine treatment, and I must confess that I know of no means so efficacious of combating the *morphine nostalgia* as I have termed the mania of the syringe. Patients will often dilute their solutions four or five times in order to have a larger amount of fluid to inject, but when they take bromide they are more ready to content themselves with the effect of the morphia, and their brain cells cease to be polarized in the direction of the syringe.

The fluid extract of COCA is a valuable preparation for relieving restlessness, and morphia patients can generally take it in teaspoonful doses, frequently repeated. The morphia habit creates a tolerance for coca and cocaine, but those in attendance upon these cases should recollect that it is not the same for them. In June, 1888, I prescribed this fluid extract in half-teaspoonful

doses to a young lady suffering from nervous prostration. The very first dose was followed by symptoms of poisoning: giddiness, prostration, small, rapid pulse, pain at the epigastrium, and impossibility to remain in any but a recumbent position. It was three days before she entirely recovered. In July, 1899, a young lady in attendance upon her cousin, a morphia patient, coming home very tired and nervous, took the amount of the extract of coca generally taken by her relative several times a day, and which was probably about $\frac{1}{3}$ of an ounce. She was shortly afterwards seized with vomiting and prostration, and when I saw her at the expiration of an hour, the breathing was excessively shallow and suspirious, pulse 140, the whole surface cold and clammy, the patient convinced that she was going to die, and complaining particularly of the head and heart. The way in which the pillows and bolsters were thrown aside, and the head buried in their place was characteristic of poisoning by cocaine, as was also the position of the body, a peculiar sprawl on the side, leaning over on the

stomach as much as the flexion of the limbs would permit.

It is an interesting fact, and one that has not been noted, that the acquired tolerance for cocaine may be lost. One of my patients, who formerly took 15 grains of cocaine daily, and as much morphia, cannot at the present day take a single milligramme of cocaine, or a few drops of liquid extract of coca, without being prostrated in consequence for several days. I have no desire to undertake a crusade against coca, but I think it right to utter a warning against its misuse as a cerebral or mental stimulant, which I feel sure the future will endorse. The different wines and elixirs of coca have at the present day an immense vogue. When Weston was supposed to keep himself going by chewing coca-leaves, the leading English physiologists came to the conclusion that the belief in its virtues was a delusion. Experience shows that the legends of the South American Indians performing feats of strength and endurance, thanks to its aid, may be received as historical facts. But coca is not without danger,

and it has already been my lot to witness nervous and cerebral breakdowns under its use, which could not be attributed to any other cause.

CANNABIS INDICA. Of this drug I have little personal experience, and the evidence concerning its value is somewhat contradictory. Dr. Mattison advises teaspoonful doses of the fluid extract, one in one, to be given and repeated frequently. In conversation with myself he assured me that there was no danger, and that its toxic power is feeble. It is his practice to give large doses of bromide for a few days, and then to withdraw the morphia rapidly, the cannabis indica being given as a hypnotic. He says, moreover, that small doses are exciting, and therefore worse than useless. Notwithstanding the assertions of Dr. Mattison, I have never ventured upon the larger dose, but, on the other hand, after what he has said I did not think it worth while to try the smaller. An Indian practitioner contributed a short paper to the *Lancet* stating that small doses of the extract, 1 to 2 grains in pills, had cured two cases of opium habit that he had been called upon

to treat; but, although he added that the patients did not know what they were taking, success of the kind is so contrary to all experience that I cannot help thinking there was some deception; of course I mean on the part of the patient. Although morphia patients, like all others, are quite free to put an end to the treatment whenever it becomes irksome, I have seldom met with one sufficiently straightforward to tell me that he would prefer to give up the attempt. But it is extremely common for them to pretend to get on phenomenally well, with or without the aid of some drug, and at the expiration of a short time to declare they are cured, although taking morphia all the time. A case went the rounds of the medical press of a woman who had acquired the morphia habit, and who was cured by a German physician with a few doses of tincture of castoreum. The Indian cases probably belong to the same category.

ATROPINE has the same action in those addicted to the morphia habit as under other circumstances, being, as a rule, an absolute controller of perspiration. A $\frac{1}{100}$ part of a grain twice a day

by the mouth is sufficient. Since the introduction of the hypodermic tabloids some morphia habitués, Americans more especially, have been accustomed to use a combination of morphia and atropine. In several cases of the kind I have met with, the heart was left, after the cure, with a very tired beat. In one case of poisoning by atropine over $\frac{3}{50}$ of a grain were taken hypodermically by a morphia habitué; the whole of the body became intensely dry, and red as a boiled lobster in the course of five minutes. The sight was lost to such an extent that very little could be perceived but light and darkness, the throat dry and constricted, and the heart rapid and incoherent. A $\frac{1}{3}$ grain of pilocarpine restored the patient to absolute comfort, with moist skin and throat, and a regular action of the heart, but the vision did not become normal for several days.

I have since had a patient who was poisoned and recovered after taking more than five times this dose, the chemist having misread centigrammes for milligrammes, and 2 centigrammes, or $\frac{1}{3}$ grain, were actually injected.

CODEINE. Some specialists, specially Guimbail and Mattison, use codeine at the end of the suppression as a temporary substitute for the morphia which has been given up. The latter states that *it does not give rise to euphoria, and consequently not to craving, and that the doses do not require to be increased.*

An American physician writing to me on the subject is also greatly in its favour. I do not quote his name for obvious reasons.

'You may remember,' he says, 'that perhaps the main feature of my paper lay in the fact that the patient made a *complete, permanent* and *spontaneous* recovery by the use of codeine when every other method had failed; being the natural route taken by moderately strong will to liberate itself, I am disposed to think that it represents the lines of the least resistance.

'When you are informed that the whole paper is simply a bit of autobiography, you may consider me excusable for being a bit tenacious and dogmatic as to the method advocated. Having worn two shoes I know which pinches the least.

Finally, as the symptoms of codeine abstinence are the same (but milder and of shorter duration) as those of morphine deprivation, it remains to be said that whatever means have been found of use in the treatment of morphinism apply with equal or more benefit in the final abandonment of codeine.'

My own experience has been diametrically opposite. I have under my care at the present time an American journalist who declares that codeine gave him all the euphoria of morphine, and that the craving was quite as disagreeable. He assures me that when being treated in a special establishment in America, there was also a young lady who had increased her dose to 24 grains.

In the year 1896 I was using it largely for my patients, and I cannot recollect its doing much good.

An English General whom I treated at that time says: 'The latter part of the business, however, was more painful than the earlier part. I mean the hypodermic and rectal injections were easier leaving off than codeine.'

A French notary, whose case is reported on in

a preceding chapter, and which is remarkable for being almost the first in which the final success was due to the Turkish bath, has given me an account of the effects he experienced from codeine. I will mention that he had come to Paris in the first place in so hopeless a condition that he had not been expected to live. His letter, which is most candid, is another proof of the correctness of my views concerning the 'after-cravings,' and the danger of too good living.

It is his wife who is serving as amanuensis, and she begins by telling me that after he left St. Jean de Dieu, 'There was a complete change in his morale; his character became gay, sometimes exaggeratedly so, and his mind acquired an extraordinary lucidity; but he had some difficulty about sleep, and physical and moral impatience and restlessness. His appetite was considerable, and he was fond of a good table.'

On learning this, I begged him to be abstemious and to use the other means I have so much recommended; also to try cerebral galvanism, which had already given me good results in other cases

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for insomnia. But this was not attended to, and some time after, he commenced the use of chloral. When he had been taking this four months he decided upon coming to Paris to see me, and in his letter he sent me a copy of the prescriptions I had given, and in which I again urged cerebral galvanism and the hot-air bath; and he adds laconically: 'I did none of the things prescribed for me.' He preferred to continue to take the chloral in 'enormous' doses, and began to coquette with morphia, although not hypodermically. 'This,' it is said, 'determined the crisis in the month of October (hepatic colic), during which he returned to morphia hypodermically, and for six weeks afterwards.' I was again appealed to, and, as he could not come to Paris, counselled the substitution of codeine.

His experience and appreciation of it, endorsed by his wife, are as follows:

'The injections of morphine were replaced by injections of codeine, and these by codeine which was either swallowed or taken by the rectum.

'It was in April or May that I perceived first

the effects of codeine; I had been taking it at this time for seven or eight months. My character became sombre, morose and violent. I had momentary and almost absolute losses of memory, and great difficulties in following my ideas, to find the words to express myself, and even physical difficulties to write—that is to say as regards forming letters; also an incapacity to take a decision, or, rather, to execute what I had decided. *Idées noires.* To sum up, the codeine has produced chiefly moral effects, for the effects of restlessness and impatience which render all kinds of work or occupation impossible existed previously, although they may perhaps have increased. I take at this time about 30 centigrammes of codeine in the day in two doses.'

His wife adds by way of postscript, 'Cannot you cure him of this horrible codeine?'

I was compelled at this time to leave Paris, and did not return for a year. I advised him to place himself under restraint if he could not manage to give it up otherwise, but I did not hear of him afterwards.

MECO-NARCEINE is most useful when it is desired to taper off the suppression in the most imperceptible way possible. It may be given to prevent feeling the want of the last dose of morphia, and in decreasing quantities, for a few days.

HYDRATE OF AMYLENE is sometimes useful, but I have not found it a reliable hypnotic. If tried it should be given in the form of capsules manufactured by Martindale.

SULPHONAL is one of the newly introduced hypnotics. It is not easily soluble, and is, therefore, difficult to administer in a mixture, unless given with gum acacia or tragacanth. The dose is from 20 to 30 grains, and the drug often acts on the night following its administration. I formerly administered it extensively, and think that if reserved for a critical moment it may be of service. After a few doses, however, it usually fails, in morphine cases, to procure sleep. Exceptionally it may render the greatest service, and I have recently seen two cases where it proved remarkably useful. The first was a lady who had been unable to make the slightest progress under the direction

of her husband, himself a medical man, chiefly because she suffered from constant discomfort about the heart, entirely caused by the hypodermic injection of sparteine. I substituted digitalis, and insisted upon having the complete and absolute direction of the case. In fifteen days the amount of morphia was reduced from 30 to 8 centigrammes, and there had not been a single uncomfortable feeling of any importance. Under the influence of sulphonal there were from ten to twelve hours' sleep each night. At this point the husband, foolishly imagining that he had learned all my little secrets, allowed himself to be persuaded by his wife to resume the treatment himself, the result, as I had foreseen, being an immediate relapse, the chief secret of success in this case being the separation of husband and wife.

The second case was that of a lady brought to me by the late Dr. Gibert of Havre. She had been taking sulphonal for some weeks, and under its influence she had been able to reduce by herself from 60 centigrammes to 10, and it was in order

to make further headway that I was consulted on her account. In a third case, that of an American lady, sent to me by a physician in San Francisco, sulphonal was so efficacious for a time that the patient declared it relieved her even more than morphia. This effect did not, however, prove lasting.

TRIONAL. This is perhaps the best all-round hypnotic that we have at present, but, like the others, should be avoided if possible.

HYOSCINE. In one instance it gave twelve hours' sleep in the dose of $\frac{1}{75}$ of a grain by the rectum, but in other cases I have been entirely disappointed by it. It is very dangerous.

VALERIANATE OF AMMONIA is a refreshing sedative and was recommended by De Quincey. It is one of a number of small means which I nearly always employ, and the sum of which contributes largely to the patient's comfort. I always use Pierlot's preparation.

Besides the preceding therapeutic remedies, a number of other physical agents and appliances may be made to render the greatest service. HOT-

WATER ENEMATA are the best means of controlling diarrhœa. MUSTARD LEAVES over the heart relieve nervous feeling about that organ, and at the nape of the neck, soothe cerebral restlessness and insomnia. The HAMMOCK combines the possibility of rest and motion, and is, therefore, useful when there is that state of restlessness and prostration which makes it equally difficult to remain still or to keep moving.

The ROCKING-CHAIR fulfils the same indication. The patient experiences the fidgets, or, as the French call it, *des inquiétudes* (a sensation of which it is very difficult to give a description), chiefly in the forearms and shins. The same kind of sensations, although in a lesser degree, are sometimes felt in gout, neurasthenia, and other conditions, and often delay sleep, but they may be relieved as a rule by friction, and pass off after a time. The morphia fidgets are characterised by the fact that though they may be masked by suitable treatment, as soon as the application is suspended they return with renewed intensity, and can only be arrested by a dose of morphia. Morphia patients will

understand the description of this restlessness as a kind of organic anxiety, *anxietas tibiarum*, a nervous orgasm caused by the physical expectation of constantly impending but delayed relief. When the treatment is conducted too quickly this restlessness is also felt in the brain. There is then a maximum of prostration, and the patient is compelled to lie on a bed or a couch; but rest is impossible, and the head is tossed from side to side in fruitless search of repose, whilst the general restlessness prevents any lengthened stillness of the body. With moderate progression the degree of unrest is quite bearable, but if the suppression is pushed on too fast for the individual case, it may, if unrelieved, become very distressing.

CEREBRAL GALVANISM is sometimes most useful in the treatment of post-morphine insomnia. I used to think it was the hyperæmiating effect of the ascending currents, for I have always found that the direction which causes a flushing of the brain with blood (thus imitating the action of morphia) is much more comforting than the reverse; and it is probably by this mechanism partly that it relieves

if it is applied during moderate craving. But for insomnia the effect lasts after the cessation of the current, and after the temporary hyperæmia has passed off; and I am inclined to think that the irritability of the brain-cell, which is proportional to its weakness, has been allayed by a partial restoration of nervous tone. For nothing is more certain than the relief obtained by my patients with this means when properly applied. We know that an external douche of water lasting a few seconds has a tonic effect which lasts for hours; and its daily repetition is one of the best treatments in nervous debility. A galvanic current should give rise during its passage to a feeling of restored comfort, and practically douches the cerebral cells with a restorative energy; and it is quite probable that the sedative effect that results is due to restored tone. This is only what might be expected by those who know what can be done by the application of cerebral galvanism in suitable cases of disordered function, independent of morphia. As a rule the newer modes of electricity are used in

the cases I allude to by most specialists; but I feel sure that the result produced is often suggestive, and due to the imposing appearance of the apparatus employed. With high-frequency, alternative, and sinusoidal currents, as well as with static electricity, the general nutrition can be improved, and the brain would no doubt participate in the results so obtained; but there is no way of acting with these currents upon the brain-cells directly. With galvanism the action of the current can be located to a nicety. The passage of the current produces tonic effects on the brain-cells and modifications of the circulation, causing excess or decrease of the blood, as the case may be. This is not only a pretty theory, but a genuinely effective application, to cause a brain which is feeling wretched from the effects of cerebral anæmia or ischæmia to receive a flushing and a strengthening supply of blood. In the case of cerebral anæmia the patient feels a vague sense of discomfort (not unlike morphia discomfort), as well as sleepiness and incapacity for thought; but the moment a

current of proper strength and direction is passed through the head a pleasurable sensation of restored comfort is produced, and the face recovers its animation. The reversal of the current not only changes this to an exaggerated feeling of distress and sometimes of giddiness, but in such cases might even lead to syncope.*

* In my paper on 'The Physiological Cure of the Morphia Habit' in the *Lancet*, August 10, 1901, I gave a warning against the use of the synthetic derivatives of morphia, and particularly heroin. I still consider this to be a most dangerous drug, but although it is as yet premature to say anything definite about the others, I have reason to think that dionine will prove a valuable addition to our therapeutic resources.

NOTE ON THE TREATMENT OF CHRONIC ALCOHOLISM

For the last ten years I have been treating alcoholism upon the same plan as the morphia habit, and my therapeutic indications of treatment are doubly manifest when it comes to the craving for alcohol.

Upon an attempt at giving up stimulants there is always cardiac depression, there is always hyperacidity, as shown by the sour smell of such patients and their acid eructations. There is always also irritable weakness.

Digitalis has been recommended before, but not because it fulfils a physiological indication so much as from the idea that it is a kind of specific for delirium tremens, and it is indeed in this class of cases that it has been chiefly advised.

The relief obtained from bicarbonate of soda is most remarkable and most manifest, and the value of the Turkish bath in remedying the consequences of excess is a matter of notoriety.

I know that it is almost a medical heresy, but besides these three means of treatment, corresponding to the same indications as in the morphia habit, I also use, when occasion requires, and with all due caution, opiates. The association of opium in small doses with the fluid extract of coca and bromides is excellent, and my favourite valerian also helps considerably in the treatment of such patients. When there are recurrent inclinations to 'nip,' a cachet of powdered capsicum may be taken as often as they recur.

There are no doubt a great many drinkers who indulge merely from the force of habit, not otherwise complicated, and to whom the word 'vicious' properly applies; but there are others in whom alcohol, whether from habit or heredity, is the only sedative for a restlessness which is the indication of some obscure physiological disturbance. When the dipsomaniac breaks out

suddenly, without apparent cause or warning, it is because there is always a physical distress, which is not always recognised, because it is not sought for (*see sphygmographic tracing*, p. 37), and the treatment I advocate is on the lines of avoiding or remedying this occult trouble.

As with morphia, this treatment presupposes a real desire to give up alcohol, and is only, therefore, applicable to a certain class of cases—those that are willing to allow themselves to be directed. It will often enable such patients to renounce their addiction with an ease they had never before thought possible. I recently treated with complete success a lady who through reverses of fortune and compulsory inactivity (she had previously been a great horsewoman) had become addicted to whisky, which she was desirous, for the sake of her children, to give up. It is difficult to measure the intensity of an addiction, and the value, therefore, of the method opposed to it; but it can be done indirectly by the failures of the treatments previously tried. In this case, for more than a year every specialist had been con-

sulted in vain, and all treatments, including Dr. Sapelier's horse serum, had totally failed. A gentleman was weaned with scarcely any discomfort by this means in ten days, who had previously attempted to break off his addiction when on the Riviera, and whose wife declared that the attempt had nearly cost him his life. In all cases the diet must of course be regulated most carefully, although on more liberal lines than in the morphia suppression. A last means that is often of the greatest help is hypnotic suggestion. With a willing patient it may prove extremely useful, and it is amusing to see how completely an alcoholic patient inclined to bullying and self-assertion can be sometimes deprived of his will and made to do what is right and proper.

The suppression once obtained, there is of course the possibility of relapse as a prospective, for the average man will not understand that after years of perversity and indulgence he cannot expect his health to be restored so entirely as to be able to live without some kind of restriction, and that some further self-denial may be required in the

future. It is the neglect of these precautions, which are in nowise irksome to carry out, merely requiring the formation of a few new habits, that causes the backsliding. To prevent relapsing, it is necessary to renounce some kinds of indulgence, and at this price there is a fair chance of the cure being permanent. When my patients have learned the nature of the 'weakening' that impels them to drink, and know how to use intelligently the physiological remedies for their morbid impulsion—when, what is equally important, they have acquired their new habits of diet and régime, they have almost invariably kept straight whilst under my observation. Whilst taking every possible means to regain and retain the general health, I have found that one of the most important measures is the adoption of vegetarianism, and this is often advantageously coupled with the suppression of salt, another recommendation that may look to those who have not studied the question like a fad.

Cerebral galvanism, by strengthening the organ of the will, has often in my hands proved most

useful. The criterion of its usefulness in any given case is the sensation experienced by the patient during the passage of the current, which, if properly applied, should give rise to no appreciable physical feeling beyond an immediate sensation of well-being.

When these different means of treatment and régime are associated with the regular use of the Turkish bath, not only does the patient remain well, *but it is a matter of difficulty for him to relapse.*

'He realises,' says the report of the American Association for the Study of Inebriety, 'that he is a cleaner man and on a higher plane. . . . As a prophylactic it (the Turkish bath) stands at the head of all remedies. . . . It is as though a heavy weight had been lifted from the bent spring of life, permitting fuller and freer play to the vital machinery, and creating a feeling of sympathetic purity in the soul.'

THE END

Baillière, Tindall & Cox, 8, *Henrietta Street, Strand*

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