PATHOLOGICAL INEBRIETY

ITS CAUSES AND TREATMENT

J. W. ASTLEY COOPER

PATHOLOGICAL INEBRIETY

PATHOLOGICAL INEBRIETY

ITS CAUSATION AND TREATMENT

BY

J. W. ASTLEY COOPER

MEDICAL SUPERINTENDENT AND LICENSEE OF GHYLLWOOD SANATORIUM
NEAR COCKERMOUTH, CUMBERLAND

WITH INTRODUCTION BY

SIR DAVID FERRIER, M.D., F.R.S.

LONDON
BAILLIÈRE, TINDALL AND COX
8, HENRIETTA STREET, COVENT GARDEN
1913

INTRODUCTORY NOTE

As I consider it of great importance that the causes and treatment of inebriety in its several forms should be properly understood, not only by the profession, but by the laity, I have consented to write an introductory note to this brochure by my friend and old pupil, Mr. Astley Cooper, who has often rendered me valuable assistance in dealing with this class of cases.

Having read the manuscript, I am convinced that the views which he expounds as to the pathology of inebriety and the principles of treatment are characterized by sound sense, and are the result of ripe experience. In particular I would call special attention to the psychical treatment of inebriety and the methods he adopts with a view to establish and develop the power of self-control, without which mere isolation or drug treatment are unavailing. As, however, the work is written in plain and lucid style, I need not anticipate its arguments, but without further prologue heartily commend it to the reader.

DAVID FERRIER.

34, Cavendish Square,
November, 1912.

AUTHOR'S PREFACE

This little book has no pretensions to being in any shape or form a textbook, but is merely an attempt to convey to the rank and file of the medical profession and to those of the general public who are interested in temperance reform some knowledge as to the causation and scientific and rational treatment of pathological, chronic, and periodic drunkenness, and to show, in the first place, how utterly mistaken has been the attempt, so long uselessly carried on, to cure inebriety by penal methods; and in the second place, to show how essential to proper treatment is adequate legal control.

A Bill is at the time of writing before Parliament to amend the existing Inebriates Acts, which are truly farcically inadequate and, in the light of our present-day knowledge of the causation of inebriety, woefully antiquated. This Bill, if passed in its entirety, will, while in every conceivable way safeguarding the inebriate, be thoroughly efficient in affording means of bringing him under proper care and treatment and in protecting his long-suffering friends and relations from his irresponsible conduct.

The report of the Parliamentary Committee of 1908, from which this Bill has been drafted, was substantially that of three other Committees which have sat on this subject during the past thirty years. The recommendations of this Committee, however, are better considered and more acceptable than those of previous Committees, and there seems no adequate reason why the Bill giving effect to these recommendations should not now become law. The one fear before former legislators when framing former Inebriates Acts seems to have been that of undue interference with the liberty of the subject. One has only to work among inebriates, no matter to what class in society they belong, to know that this fear of interfering with the liberty of a subject who has no real liberty, in that he is a slave habitually or periodically to the drink craze, results in the interference of the liberty of all those who have to put up with his irresponsible behaviour under the influence of alcohol and other narcotic drugs, leading to untold misery and wretchedness. The present Bill, if and when it becomes law, in anything like its present form, will be welcomed by thousands of harassed individuals whose lives are at present being made a burden to them for want of some control over the inebriate, and it will be at first cursed, and afterwards in many cases, I believe, blessed, by the inebriate himself. Amended Inebriate Acts are nearly as important to the nation as are the Lunacy Laws.

The manuscript of this little book was completed

early in 1912, but for various reasons did not go to the publishers till some months later. During this interval "Alcoholism: its Treatment and Clinical Aspects" (J. and A. Churchill and Co.) has been written by Dr. Francis Hare, Medical Superintendent of the Norwood Sanatorium at Beckenham. This book is of great merit in nearly every respect, but in the friendliest possible spirit I feel that I must disagree with certain points in it. It seems to me that on little or no evidence Dr. Hare belittles the policy and treatment of licensed "retreats as a whole, while eulogizing without stint the policy of what he calls the "free sanatorium," as exemplified at Beckenham. If Dr. Hare were more conversant with the present-day policy and treatment adopted in licensed "retreats," he could, I think, hardly have written as he has in respect to them.

Dr. Hare is, of course, right in saying that co-operation in and voluntary submission to treatment is an essential factor in the cure of the inebriate, and I have strongly emphasized this in the following pages. One of the most pronounced features of inebriety is, however, the inability of many inebriates to appreciate the necessity for treatment, and particularly for prolonged treatment; and the more severe the inebriety, the less easy is it first of all to get the patient under treatment at all, and, secondly, to get him to remain so long enough for any treatment to have a permanently curative effect. Moreover, there are at present a large number of inebriates whose condition has been so long

neglected, owing to want of legal control, that there is now little chance of a cure being effected, but for whom, in their own and their relations' interests, constant supervision is necessary. These things being so, were the treatment of inebriety only possible in a "free" sanatorium such as at Beckenham, only a very small minority of inebriates would come under treatment at all, and these would be of the least severe type. Licensed "retreats" with legal powers of detention and restraint, available when required, are therefore a necessity if any but a comparatively small number of the less severe cases of inebriety are to be effectually treated. There is ample scope for such a "free" sanatorium as that at Beckenham; there is, however, even more scope for the licensed "retreat" now, and there will be still more scope when the Inebriates Acts are amended, as there now seems to be every prospect that they will be, so as to bring those inebriates who are unable to appreciate the necessity of submitting themselves to treatment, under legal control. It seems to me, therefore, to be regretted that Dr. Hare should have seen fit in his excellent book to "damn with faint praise," if not to actually condemn, the policy of licensed "retreats," which, by the way, is not quite the policy that he imagines it to be.

On the ground that the patients, or some of them, found in licensed "retreats" are there under compulsion, Dr. Hare concludes that the moral tone of the "free" sanatorium is much better than that of the "licensed" retreat. While he gives no evidence in

support of this statement, he says it must be so from the fact that the patients are under compulsory conditions.

While admitting that compulsory restraint undoubtedly militates against *esprit de cœur*, I cannot agree with Dr. Hare that it has such a bad effect as he would have us believe, and think that a very great deal depends on how the powers of the licensee of a licensed "retreat" are exercised. Both in the "free" sanatorium and in the licensed "retreat" an occasional patient will prove utterly incorrigible. In a "free" sanatorium presumably this patient is expelled; in a licensed "retreat" more endeavour is made to detain him in the interest of his friends, if not in his own, and my experience goes to show that such patients do not, except in rare instances, affect the tone of the institution, nor do they gain kudos for their behaviour from their fellow-patients. One other point mentioned in the comparison of the "free" sanatorium with the licensed "retreat" I cannot pass without comment.

"Outwitting the management," he says, speaking of licensed "retreats," "is apt to be regarded as a joke, and the smuggling in of alcohol with a lenient eye. . . . Now, in a voluntary sanatorium the superintendent is *never* faced with this difficulty" (the italics are Dr. Hare's). "In the few instances in which liquor has been brought in the patient has been careful to keep his treasure to himself, for he well knows he would obtain no sympathy from the others.

Those others would regard him as a general nuisance and as a common enemy." To one unacquainted with inebriate institutions this statement is entirely misleading ; it conjures up visions of a licensed "retreat" where the patients are plotting how to obtain liquor, and having obtained it, are regaling their fellow-patients therewith, and in contrast it conjures up visions of a "free" sanatorium where the medical superintendent is *never* faced with this difficulty. My own experience of seven and a half years as medical superintendent of a licensed "retreat" is that patients seldom bring in drink when they are given opportunities to do so, and I could count on the fingers of one hand the times when such drink has been shared by a fellow-patient. I am convinced that in any licensed "retreat" where this is otherwise, the cause is not to be found in the compulsory policy, but in the way that compulsory policy is carried out. Is it too much to think that when Dr. Hare says "the medical superintendent of a 'free' sanatorium is *never* faced with this difficulty" that the wish is father to the thought, and that such strictures on a compulsory policy show a want of acquaintance with such policy?

If any policy at present in use in inebriate institutions needs criticism, is it not the policy of mixing male and female patients in one sanatorium, as is done at Beckenham? From a eugenic point of view surely such a mixing of sexes is quite indefensible. I have practical evidence before me of a very disastrous result of this policy—namely, a matrimonial engage-

ment between two inebriate patients who met while undergoing treatment in the same institution, and I fear that this is hardly likely to be an isolated case. I have much hearsay evidence of other very disastrous results of this policy, and cannot conceive and have never heard any sound justification for it. I find no attempt in Dr. Hare's book to justify it; indeed, he ignores the point altogether. There is nothing in Dr. Hare's book to justify us in regarding the systematic injection of atropine and strychnine *as a specific* in the treatment of inebriety, a conclusion which I arrived at long ago, and have set forth in the following pages. That there is, however, a psychological value in such systematic medication, apart from any physiological value of the drugs used, I am fully prepared to grant, as I have mentioned in the following pages, and am pleased to find that this psychological value has more and more impressed itself on Dr. Hare. Is it not time to estimate the treatment of inebriety by atropine and strychnine at its true and scientific rather than at its fictitious and empiric value?

While admitting the psychological value of this drug treatment, methodically carried out, Dr. Hare does not allow himself to admit the value of far more valuable psychotherapeutic methods whose value in the treatment of inebriety is endorsed and vouched for by such men as Moll, Krafft-Ebing, Bernheim, Sidis, Forel, Morton Prince, Münsterberg, and others abroad, and by Milne Bramwell, Wingfield, Crichton-Miller, and others in this country.

While feeling that there are passages in Dr. Hare's book that I could not leave unnoticed, I am deeply sensible of the great value of his work, and owe him a deep debt of gratitude for much instruction gained from the annual reports of the Norwood Sanatorium—instruction of which I have not failed to make use of in the following pages. I offer him my thanks for this instruction, and trust that he will accept them and forgive an entirely friendly criticism.

I have also to thank Dr. R. W. Branthwaite, His Majesty's Inspector under the Inebriates Acts, for much kind assistance and valuable teaching; and my old master at King's College Hospital, Sir David Ferrier, for the very kindly introduction he has been good enough to write to this small effort.

J. W. A. C.

CONTENTS

PATHOLOGICAL INEBRIETY

CHAPTER I

THE NATURE OF PATHOLOGICAL INEBRIETY

The question as to whether inebriety is to be regarded as a disease or a vice, and consequently whether the inebriate merits medical treatment or penal measures, has been a vexed one for many years—for far more, indeed, than should have been the case had the condition received the attention at the hands of the medical profession it deserves.

Until comparatively recently in medical history, the grosser forms of mental disease and defect remained unrecognized and untreated. The lesser, but no less important ones, of which pathological inebriety is only one of many, are but now beginning to receive the attention they deserve, and to emerge from obscurity.

Considerable study has of late years been given by a small number of the medical profession to the subject of inebriety, and legislation, while still very defective in dealing with the inebriate, has enabled us to gain

some considerable amount of clinical experience of inebriates during the past ten years, not only during their drinking bouts, but, what is far more important for the acquirement of knowledge, also during periods of more or less enforced sobriety.

Such study and experience have taught us to distinguish between the self-indulgent occasional drunkard and the true inebriate, whose inebriety is the result of *an inherent or an acquired psychopathic constitution.*

The occasional drunkard, while he may with greater or less frequency drink to excess, retains the power to remain, and when drunk to get, sober at will. Lacking perhaps in some measure in moral sense, in power of self-control over impulses, and in power of judgment, such an individual is still on the right side. It is possible, however, that further degenerative changes consequent on his mode of living (which is, after all, a result and proof of an already more or less unsound psychoneurotic integrity), may eventually bring him into our hands. Till such changes take place he may be left to the teaching of the reformer and the discipline of the police magistrate.

Far otherwise is it with the true inebriate, whose inebriety is the result of a markedly diseased or defective psychoneurotic constitution. This individual *has not the power to take alcohol and remain sober, nor when intoxicated has he the power to stop drinking and become sober so long as he is able to obtain and retain alcoholic liquors.*

Lacking to a far greater extent than does the occasional drunkard in moral sense, power of self-control, power of judgment, and such-like qualities as we find in more or less perfection in a normally constituted person, this individual is on the wrong side, and no amount of compulsion, however drastic and penal, will ever alter his inebriate state, *unless and until some change is brought about in his psychoneurotic equipment.*

In the absence of alcohol the true inebriate shows other symptoms of psychoneurotic defect. He may be excitable, impulsive, lazy, morose, melancholic, or passionate, untruthful, immoral, or merely eccentric; intellectually he is frequently above the average, and not seldom extremely brilliant. On the other hand, he is not infrequently obviously feeble-minded. From close observation of the large number of inebriate patients we have had under our care during some sixteen years, we unhesitatingly agree with Dr. R. W. Branthwaite* when he says: "I do not believe any drunkard out of the 8,000 or so I have known has voluntarily and of intention made himself so; on the contrary, I am convinced that *all who possessed a sufficiently developed mental equilibrium*† to appreciate the seriousness of their condition have urgently and honestly desired and striven to lead a sober life, and failed in a struggle against a defect or weakness, the

* Dr. R. W. Branthwaite at the Twelfth International Alcoholic Congress, 1910.

† The italics are ours.

magnitude of which a normally constituted individual is utterly incapable of fully realizing."

If this be true—and we think the statement will be endorsed by all those who have had the opportunity, and availed themselves of it, of watching the daily life of a large number of inebriates—then we may without hesitation accept Dr. Branthwaite's definition of an inebriate.

"An inebriate," he says, "is an individual who may or may not desire to live soberly, but in any case cannot, unless and until some change takes place in his mental state." If we accept this definition, we must accept the fact that true inebriety is a symptom of psychoneurotic disease or defect, and that therefore the true inebriate merits not punishment, but the most skilful medical treatment, if he is to be cured or have his condition improved.

We propose in the following chapters to describe the causes of the inebriate state, its complications and treatment.

The diseased psychoneurotic condition on which inebriety depends is curable, as many other mental and physical diseased conditions are curable, in proportion to the amount of disease or defect that is present in the individual. Proper treatment in early stages of the trouble, when that trouble is not beyond repair, yields wonderfully good results. Improper treatment—and the use of penal measures without skilled medical treatment is one example of such—aggravates the mental instability and renders incurable

a once curable condition. Much has still to be learned as to the causes and treatment of those mental states on which inebriety depends, and we can only hope in these pages to induce others to further investigate a most interesting and important branch of medical work.

CHAPTER II

FORMS OF ALCOHOL INEBRIETY

Owing to the failure to distinguish between inebriety the vice and inebriety a symptom of psychoneurotic disease, many forms of inebriety have been described which are not really forms of pathological inebriety at all.

With such forms of inebriety as "week-end," "bank-holiday," and other forms of occasional self-indulgent drunkenness, for which the inebriated person may be justly held responsible and to merit punishment, we have nothing to do here, except in so far as such may sometimes develop—*and then, we believe, only in the cases of predisposed persons*—into pathological inebriety, for which the inebriate can no longer be held responsible until those developed psychoneurotic defects or peculiarities, on which the continued inebriety depends, have been treated or removed.

To include such forms of inebriety in a classification of the forms of pathological inebriety has only tended to confusion, and to accentuate and per-

petuate the difficulty of diagnosing between drunkenness the vice and drunkenness the outcome of disease.

We shall therefore leave "week-end," "bank-holiday," and such-like forms of self-indulgent occasional drunkenness to the care of the temperance reformer and the police magistrate, and deal here only with those forms of drunkenness which are obviously due to a pathological psychoneurotic condition.

Of these there are two—namely, periodic and chronic pathological inebriety, into which we may, without fear of controversy, divide alcohol inebriety. With this subdivision some authorities are content and others are not content. Those who are content, while recognizing differences in the onset and maintenance of the outbreak in individual cases of periodic inebriety and in the proximate causes of these outbreaks, would seem to fear that any further subdivision of forms would only lead to more confusion, and is arbitrary and unnecessary.

We are, however, of opinion that a further subdivision would be more truly scientific, and would tend to remove erroneous ideas which exist as to the meaning of dipsomania—a term now used by many in a very loose and unsatisfactory way as covering all classes of inebriates, periodic and chronic, and by others in the true sense, as we shall use it here, and as Dr. Mott* and others have used it.

* Dr. Mott before the Seventieth British Medical Association meeting of July, 1910.

Dr. Francis Hare* would seem to agree with us as to the scientific value of a further subdivision, and classifies inebriates as dipsomaniacs, pseudo-dipsomaniacs, and chronic inebriates.

"These terms," he says, "demand some explanation. Under dipsomania are included only those cases in which the recurrent invincible craving for alcohol distinctly *preceded* the consumption. Under pseudo-dipsomania are included all those cases in which there was a recurrent invincible craving for alcohol, but in which such craving did not precede, but invariably *followed and depended on*, the consumption of alcohol. Patients so affected are largely at the mercy of circumstances, the starting of their drinking bouts depending in the main upon *extrinsic causes*. Under chronic inebriety are included the large class of steady dram-drinkers or 'soakers.' Such patients rarely go for more than a few hours without alcohol, and many have acquired a high degree of *tolerance*.

"Experience has shown that the difficulty of accurate classification, referred to in the last (second) annual report, was not underestimated. The above classification is probably the most useful one available. But since the divisions between the classes are ill-defined, it must remain very largely arbitrary; yet in typical cases the dividing lines are clear."

Seeing that there is a marked difference in typical cases of dipsomania and typical cases of what Dr. Hare calls pseudo-dipsomania (1) in the proxi-

* Third Report of the Norwood Sanatorium, p. 7.

mate cause of the attacks and (2) in the periodicity of the attacks, we think it is not truly scientific to place both these conditions into one class and label them merely as periodic inebriety.

Moreover, as Dr. Hare also points out, the treatment of true dipsomania and the prognosis of dipsomania are also somewhat different from the treatment and prognosis of pseudo-dipsomania, and, on this account again, it would seem wrong not to differentiate between them.

The objection to Dr. Hare's classification, if one exists, seems to lie in the name he gives to the inebriate, the proximate cause of whose periodic outbreak is alcohol and not insane impulse.

We think it is a mistake to allow any such connection to exist between the two conditions as is implied by the mere distinction conferred by the prefix "pseudo."

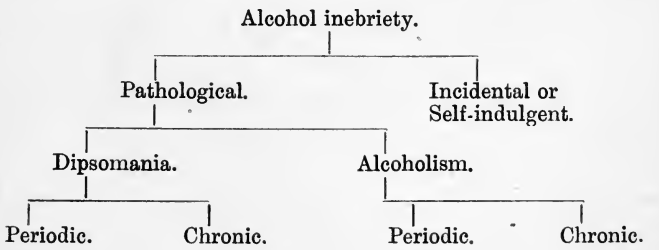
Dipsomania as a form of periodic inebriety due to a periodic insane impulse should, we think, stand alone, and we think all other forms of pathological inebriety may be properly called "alcoholism," subdivided into periodic alcoholism and chronic alcoholism.

Dipsomania is, strictly speaking, not alcoholism, but a form of periodic insanity, of which an uncontrollable impulse to intoxication is the most prominent, but by no means the only, symptoms of a periodic psychophysical disturbance.

Alcoholism, whether periodic or chronic, would seem to depend on an inherent or acquired abnormal

psychophysical constitution, the abnormality consisting in a greater or lesser degree of mental defect, showing itself in a want of control and analytical reasoning power, and in a peculiar plasticity to the action of alcohol.

We would therefore suggest the following as a classification, which includes, and, we think, satisfactorily places, all forms of pathological inebriety without introducing any new or confusing terms:



The only forms included in this classification which overlap one another to an extent that may lead to any serious confusion are chronic dipsomania and chronic alcoholism. For chronic dipsomania is made up of the original periodic insane impulse to which alcoholism, the outcome of long-continued custom, has been added. The result is a condition which is really a chronic alcoholism, showing under careful observation periodic exacerbations of heavier drinking, corresponding more or less to the original periodic outbreaks of an earlier stage of the condition.

Typical cases of dipsomania and of periodic and

chronic alcoholism other than dipsomania are easily recognized. In practice, however, it must be understood that there is an ill-defined line between dipsomania and other forms of periodic alcoholism. We shall consider the points of diagnosis between them when describing these forms later on.

CHAPTER III

THE CAUSES OF PATHOLOGICAL INEBRIETY

In considering the causes of pathological drunkenness, whether such drunkenness is periodic or chronic, we must be careful not to confuse the causes of mere careless self-indulgent excesses with those of the psychoneurotic and psychophysical defects and peculiarities of constitution on which inebriety depends.

With the causes of self-indulgent excess we are only concerned in so far as they may be responsible for lapses on the part of the inebriate from strict teetotalism.

We have stated that, in our opinion, pathological or habitual inebriety, periodic or chronic, depends upon psychophysical and psychoneurotic peculiarities and defects which may be inherent or acquired, and in this opinion we have the support of those best qualified to form a judgment.

We will now point out what would seem to be the principal defects and peculiarities, and what are the apparent causes of such defects and peculiarities.

Except in cases where the inebriety is a symptom of actual insanity, we do not find, nor can we expect to

find, any gross pathological brain lesions. Long-standing alcoholism of a chronic nature results in degeneration of the brain cells and cerebral membranes, but this is the effect rather than the cause of the alcoholism.*

So far we are only able to theorize as to the mischief that is present and responsible for clinically observed defects and peculiarities.

Sir George Savage says: "One of the greatest difficulties which has presented itself to the student of insanity has been the fact that *post mortem* so little has been found visible to the naked eye. I may say that, with my experience of years, and after seeing many hundreds of the bodies of the insane, I have met with few coarse changes within the skull, and even with the higher powers of the microscope all that can often be detected may be evidences of change in the nutrition of the connective tissue of the brain." † What is true of insanity proper is still more true, and may be expected to be more true, with regard to such psychoneurotic defects and peculiarities as fall short in greater or less degree of actual insanity.

As Sir George Savage says: "This may be unsatisfactory, but the time will come when the interrelations between the millions of nerve cells with their manifold processes and their dependence for healthy action upon healthy blood and pure air will be better understood. The brain, like a kaleidoscope,

* Dr. Mott's observations.

† "Insanity and Allied Neuroses."

consists of innumerable parts, which adapt themselves to varying patterns. A shake occurs, the pattern changes, but each one of the pieces still exists as it did before; no change in shape, no change in colour, only a change in relationship. So I believe will it be found to be with many forms of insanity, change in one faculty changing the mental pattern."

The periodic forms of inebriety, and to a less extent perhaps the chronic forms, would often seem to owe their origin to some such obscure "shake up" of the nervous system which, while leaving no recognizable organic mischief, brings into prominence defects and peculiarities either unnoticed previously, or, if noticed, to accentuate them to an extent which makes them mischievous.

The following are the principal psychophysical defects and peculiarities found to be present in greater or less degree in all alcoholic inebriates, and on them their inebriety would seem to depend.

1. An incapacity to bear physical or mental pain or distress, or an abnormal degree of mental or physical hyperæsthesia, or both. The consequence of such defect or peculiarity is an abnormal need of immediate, adequate, and complete relief of such mental or physical pain or distress at any and all costs.

2. Defective moral sense.

3. Defective sense of responsibility.

4. Intolerance or tolerance of alcohol, below or above normal respectively. The intolerance is seen in periodic and the tolerance in chronic inebriety.

5. Defective realization and appreciation of his abnormalities on the part of the inebriate, even when sober, which are obvious to those about him, such defect being observable in a great many persons of unstable mental equilibrium, who are not insane, as well as in insane persons.

6. Defective inhibition, making resistance to any real or fancied need, desire or impulse, abnormally difficult. Such inhibition shows itself in relation to most of the affairs of everyday life, and not by any means only in regard to alcohol custom or usage, though such custom long continued increases the defect.

7. A generally defective mental equilibrium, showing itself principally perhaps in want of concentration and attention, abnormal emotionalism, unreasonable likes and dislikes, unreasonable and undue self-appreciation or self-depreciation, extremes of optimism and pessimism, cynicism and tedium vitæ.

These defects and peculiarities are present in greater or less degree in all pathological inebriates, though not always all present in the same individual, and always in varying proportions.

Perhaps the defect which varies most is the defect in the moral sense. It is nearly always present in some considerable degree, but may vary very greatly, and is one of the defects which is always made worse by continued alcoholic abuse, and which benefits very much under total abstinence and treatment generally.

We have now to consider what is the origin of

these defects and peculiarities, as such origin will also be the predisposing causes of inebriety.

There can be no doubt that these defects and peculiarities may be inherent or acquired, and it seems doubtful — very doubtful indeed — whether pathological inebriety can exist unless such defects and peculiarities inherent or acquired are present, and it is equally doubtful whether such peculiarities and defects, with the exception, perhaps, of tolerance of alcohol, can be acquired by careless and occasional drinking alone.

Heredity is undoubtedly responsible for the presence of many of these defects and peculiarities. Insanity, psychoses, neurasthenia, hysteria, and other mental and nervous disorders of greater or less importance are undoubtedly transmitted from parent to offspring, one form of disorder, defect, or peculiarity in the parent, showing itself, not perhaps in the same, but in a similar, form in the offspring, or being transmitted as a general nervous diathesis or cachexia.

Physical disease in the parent may result either in physical disease and in lesser disorders in the children. Phthisis, syphilis, arthritic disease, in the parent are all acknowledged to be causes of insanity, degeneracy, and lesser psychoneurotic disturbances in the offspring.

There is little room for doubt that these peculiarities and defects we have mentioned are the result of transmitted taint, and that therefore inebriety can be at least indirectly inherited.

The evidence in favour of the direct inheritance of inebriety is, we think, equally strong. If we allow that chronic alcoholism at least in the parent produces mental degeneracy in the offspring (of which there can be no doubt), then we must admit that chronic alcoholism in the parent stock, being responsible for degeneracy, must also be responsible for inebriety, a result of such degeneracy.

This question is, however, still in debate, and therefore we do not propose to dogmatize upon it, but prefer to leave it for the present to further experimental research. It is a highly important question, and one in which personal observation is likely to be more valuable than statistics. We therefore contribute an example drawn from our personal experience, which shows degeneracy in the offspring of alcoholic parents, *but which also shows* the difficulty of determining how much that degeneracy is due to the alcoholism of the parents, and how much to degeneracy of the parents which was the cause of the parental alcoholism.

Mr. and Mrs. A married when A was a moderate drinker or total abstainer, with periodic bouts of inebriety occurring two or three times a year, the exciting cause of such bouts being usually convivial meetings, and nearly always the result of champagne drinking. Mrs. A was in early married life a strictly moderate drinker. Both parents, so far as one is able to judge from a fairly intimate knowledge, were more than ordinarily sound physically at this time.

The first child, a boy, was born in the first year of marriage, and was, and is still, physically healthy. Mentally he was, and is, of average capacity, but was, and is, somewhat unstable and wayward, egotistical, and selfish.

The second boy was born two years later, when the father's inebriety had become more frequent and the mother had taken to drinking to excess, not periodically, but constantly, neither of them, however, showing any particular results of their excesses.

This child was a weakling from birth physically and mentally, did not talk at all till long after he should, and has never been able to speak normally, while he is very backward in every way, approaching feeble-mindedness, and of weak physical health.

The third child, also a boy, was born when the mother was showing more advanced signs of alcoholism, the father remaining in much the same condition as previously, spells of teetotalism alternating with two or three weeks' inebriety.

This child shows more physical weakness of constitution than the other child, and was reared with great difficulty. We have not seen the child for some years now, and are not able to give an opinion as to the mental condition, except that, like the second boy, he was, when last seen, backward, physically and mentally.*

* For further evidence of the effect of alcohol on offspring, the reader is referred to the works of Victor Horsley and Dr. Mary Sturge, "Alcohol and the Human Body," and to

Here we have distinct evidence of alcoholism in *apparently* healthy parents with no discoverable previous alcoholic history, resulting in physical and mental degeneracy in the offspring; but we must not lose sight of the fact that psychically, at all events, the health of the parents was more apparent than real, both showing defective inhibition to a marked extent, resulting in the one case in periodic, and in the other in chronic, inebriety.

All these children are at present too young to show any signs of actual inebriety.

Another instance of mental instability resulting in inebriety, being apparently the consequence of alcoholism in the parents, is the following:

B C, only child. Both parents alcoholic; father dying of the effects of alcohol at forty years of age. Showed no apparent mental defects or peculiarities that can be traced during childhood. Physical health above the average; intellectual capacity at least average.

At the age of sixteen, when at a public school, he, for no apparent reason, disappeared, and was found two days later in London, very drunk. There having been no previous complaint of him, and as he was penitent and full of promises of future amendment, he was taken back to school. In a week he dis-

---

the "Studies on Parental Alcoholism," by Professor Karl Pearson and Miss Elderton, and also to a discussion between these and authorities on "Alcohol and Degeneration" in the *British Medical Journal*, 1910 and 1911.

appeared again, and arrived eventually, in an intoxicated condition, at the house of his guardian and trustee. From that day to this (seven years) his career has been one of periodic inebriety, with short and uncertain periods of teetotalism or moderation, these latter only occurring when he is under some sort of supervision, or suffering from the immediate results of his last bout of intoxication.

In addition to inebriety this youth has shown an utter want of responsibility, manifesting itself in foolish, impulsive extravagance (running through £20,000 in two years), and a preference for the company of those in a lower station of life than his own. He is imitative and adaptable, and equally at ease in good society or in the lowest company. He has no principles or moral sense, and a decided criminal instinct. He has been subjected to all sorts of treatment, from the lightest discipline and encouragement to penal measures, without any results, and commits criminal actions merely because they amuse him.

Here, again, while we have distinct evidence of alcoholism in both parents, we have also to bear in mind that such alcoholism might well have been, and, so far as we have been able to gather, was, the result of mental defect and peculiarity, and that, consequently, alcoholism in the parents cannot be said to be without doubt wholly responsible for the inebriety of the son.

Whether or not alcoholism begets alcoholism, it may be taken as certain, we think, that alcoholism in

parents is responsible for psychophysical defects and peculiarities, which are predisposing causes of inebriety in the offspring.

While doubting the possibility of occasional alcoholic excess causing in a physically and mentally healthy person those defects and peculiarities on which habitual periodic or chronic inebriety depends, there is no doubt that abuse of alcohol carried on for any great length of time, or frequently repeated, does produce damage, more or less severe, to the nerve elements of the body generally and of the brain—the seat of the most highly organized nerve structures—in particular, these degenerative changes strongly resembling those of senile degenerative changes. Therefore, granted the existence of defects and peculiarities of mental constitution, inherent or acquired, sufficient to lead to alcoholism, such alcoholism will, and does, develop and magnify such peculiarities and defects.

Alcohol in itself, therefore, must, we think, be reckoned with as a predisposing and also as an exciting cause of inebriety, and cannot be used carelessly or abused without grave risks.

Other principal causes of these peculiarities and defects which predispose to inebriety—causes which arouse them where they have previously been present, but dormant and harmless—are physical and psychical traumatisms.

Of the physical traumatisms, those most likely to bring them into existence or develop them are head

injuries. Any physical shock may, however, in a predisposed person result in periodic or chronic inebriety, though he has up to that time been a sober individual. We could, if it would serve any useful purpose, quote numerous cases from our own experience and that of others, in which inebriety has been found to have started in a previously moderate drinker or total abstainer in immediate sequence to a physical traumatism of greater or less severity.

As might be expected from the fact that inebriety is the result of mental rather than physical defect, psychical shock and traumatism are a greater cause of such defect, and consequently of inebriety, than physical shock and traumatism; and psychical traumatisms are much more prevalent in everyday life than physical, and they have a much more disastrous effect than is generally supposed.

Psychotherapy,* and the psycho-analysis necessary to it, has revealed the fact that many obscure mental peculiarities owe their origin to some psychic traumatism, long forgotten by the patient, which has left a mark, the cause of which has never been recognized, and which, once recognized and properly treated, totally disappears.

We are convinced that many cases of inebriety owe their origin to some unrecognized and long-forgotten psychical shock, as many undoubtedly do to more obvious ones. It is unnecessary to specify the numerous kinds of psychic shock that may, and do,

* See Freud's works on psycho-analysis.

result in habitual inebriety, of which business failure (especially when uninvited), sudden family bereavements, unsatisfactory love-affairs, false accusations, etc., are perhaps the most common: comparatively trivial incidents, however, often occurring in quite early life, that would make no impression on a well-poised, sound, psychic constitution, may be the starting-point in a predisposed person of a train of psychic disturbances, of which inebriety may be a symptom.

A patient of ours disclosed a history of worry and a fear of committing suicide of two years' standing, to forget which and to procure sleep he took to the use of alcohol. The fear arose after reading of the suicide of an acquaintance, who cut his throat with a table knife. This patient could not see a knife, scissors, or razor, without being tormented with the fear that he would use it to commit suicide. He had no wish to commit suicide himself, and realized that his fears were absurd; but, unless under the influence of alcohol or occupied with work, he was never free from what he called his "evil thoughts," and was morbid and depressed in consequence. This patient's inebriety was the result of the shock sustained when in a neurasthenic condition from overwork.

Inebriety the result of psychic shock or inherited psychoses would seem to show more mental symptoms than when it arises from other causes.

Neurasthenia, congenital or acquired, is not only a predisposing cause of inebriety, but predisposes a

person to severe consequences following a comparatively trivial psychic shock.

The same may be said of chronic dyspepsia and other disturbances of nutrition of long standing.

Exhausting bodily illnesses, such as phthisis, typhoid fever, dysentery, etc., will serve to bring into prominence such defects as want of inhibition and uncontrolled desire for relief by stimulants from bodily and mental exhaustion, pain, or discomfort.

Certain periods of life are particularly prone to cause psychoneurotic disturbances, peculiarities and defects tending to alcoholism. Such periods as have been shown to be conducive to the onset or development of more severe mental disturbances are also conducive to the onset or development of lesser disturbances resulting in periodic or chronic inebriety.

The first of these periods is adolescence, the second (in women) the menopause, and the third old age.

The character of the inebriety would seem to be somewhat different when occurring as the result of mental changes due to these periods. Adolescent inebriety is prone to be periodic; that arising at the menopause and in old age is usually chronic in type.

Just as severer forms of insanity are apt to arise as a result of pregnancy and lactation, and to be of a periodic and temporary character, so it is with inebriety; pregnancy and lactation would seem to be predisposing and exciting causes of inebriety, which may disappear with the cause and return only when it returns; or which, once started in this way, may

persist after the cause has ceased to exist. The temporary or permanent character of the inebriety in these cases seems to depend on the amount of mental or psychic abnormality present previous to the attack of the exciting cause. Illegitimate pregnancy is a much more frequent cause of insanity than pregnancy after marriage; and illegitimate pregnancies or the undesired pregnancies of married life seem to have greater effect than others in the production of inebriety.

Syphilis, in common with other diseases, has been mentioned as a cause of inebriety. Its action in the production of inebriety would appear to be twofold; it is a psychic cause as well as a physical cause. The fear of syphilis (syphilophobia), whether actually present or not, may result in inebriety in a neurotic individual; and an attack of syphilis in a person of neurasthenic or psychasthenic constitution will produce inebriety and other symptoms of mental disturbance, apart altogether from the organic physical mischief caused by the disease.

The same holds good of the mental mischief wrought by the dread inspired in the mind at the onset, or expected onset, of other diseases which have a high mortality, or are permanently crippling or disfiguring.

Another factor concerned in the origin—or, at least, in the development of these mental defects and psychic peculiarities—is faulty upbringing and education. Many children of all classes, and more so than formerly,

apart from the discipline of school, are brought up without any training directed towards self-restraint, the acquirement of self-reliance and responsibility. They are allowed to think of themselves first, and are left to acquire as best they can just those qualities necessary to them in after-life: control over emotions and impulses, power of judgment, self-reliance, power of concentration and application, in due proportion, to work or pleasure. These are the qualities we find lacking in all alcohol or drug habitués to a greater or less degree.

Many of these qualities in congenitally defective children will persist in spite of education and training, but we are of opinion that a great deal might be done, even in these cases, to counteract them, and that a sound training to those who are defective in the minor degrees would at least prevent further defect, and in many cases tend to remove the defect.

The training many children get, or the lack of proper training, is calculated not only not to benefit existing congenital defect, but to bring into existence defects that should not develop under better training. Most of this fault would seem to be in the home training of children, but we think more might be done in our schools, more particularly in preparatory schools, to discover and to counteract psychoneurotic peculiarities or defects.

Lack of education in later childhood and early adult life as to the properties of alcohol, its action on the human body and mind, might be classed as to

some extent a cause of inebriety, and a cause that is easily remedied and removed. Many youths wholly unfitted to the use of alcohol take it in entire ignorance that they are incurring any risk in doing so, and only learn when too late what they might have been taught and had driven home earlier in life.

We think these are the principal predisposing causes of inebriety. Any causes bringing about or developing a neurasthenic, psychasthenic, or more severe pathological condition of the higher nervous system, are predisposing causes of periodic or chronic inebriety, and such neurasthenia, psychasthenia, or actual insanity, may be acquired or congenital.

Exciting Causes.—Given an acquired or congenital mental instability, such as we have described, then any causes which conduce to the use of alcohol will be causes of habitual periodic or chronic inebriety. The neurasthenic, psychasthenic, mentally unstable, or actually insane person who is exposed to the temptation to use alcohol for any of the hundred and one conditions for which it has become customary to use it, will, unless he has been successfully trained and taught to avoid it as a poison (and often in spite of such training), in the vast majority of cases succumb to such temptation, and if he does so succumb inebriety will in the greater number of cases follow, in proportion to the degree of nervous, mental, or psychic disturbance present.

Such exciting causes are too numerous and varied to tabulate, and will be evident to any thinking person,

and will often be so trivial as to be regarded as mere excuses; as indeed they would be if we disregarded the abnormal constitution of the patient.

To all such mentally defective persons then, alcohol and other stimulant and narcotic drugs should be "taboo," and cannot be used in moderation without the gravest possible risk of the production of habitual periodic or chronic inebriety.

"Although the experiment cannot be regarded as a safe one, because of the possible existence of unrecognized mental defect, there can be no doubt whatever, in my opinion, that the man who has taken alcohol regularly without apparent detriment, during a long life, has applied to himself one of the most perfect tests of mental equilibrium, power of control over impulses, and power of judgment, it is possible to apply."*

The daily life of most people nowadays calls forth all our energies, whether we live for work or for pleasure. The tendency is to overdraw on our health account; we get frequent warnings of such overdrawal, which we either in most cases disregard or call forth extra efforts of latent energy to combat, by the use of stimulants or narcotics, or both. The result is a nervous bankruptcy, one of the results of which again is inebriety.

* Dr. R. W. Branthwaite in the Second Norman Kerr Lecture, "Inebriety: its Causation and Control."

CHAPTER IV

DIPSOMANIA

The term "dipsomania" has been in the past, and is to some extent still, used in reference to any form of inebriety. Sir George Savage* says of it, in his book on "Insanity and Allied Neuroses," published fifteen years ago:

"Dipsomania must be considered as an irresistible desire for stimulants. It may grow out of habit, it may be an inheritance, it may be an insane symptom, or it may be the vestige of insanity."

The term is, however, now confined to a sudden periodic inebriety whose cause is proximately *an insane impulse* to take stimulants to intoxication, irrespective of any immediately preceding alcoholic indulgence. And it is with such a meaning as this that we use the term here.

Dr. Mott† describes dipsomania as follows, giving the term its modern meaning:

"Dipsomania is a form of periodic insanity. There

* "Insanity and Allied Neuroses," Geo. Savage.

† Section of Pathology, Seventieth Annual Meeting of the British Medical Association, July, 1910.

are persons," he says, "who have periodic cravings for alcohol, who in the intervals lead a sober and respectable life. Suddenly and apparently for no accountable reason save an unnatural and insane craving for drink, dipsomaniacs neglect their home and business, take little food, do not attend to their personal care or comfort, and, drinking continuously to satisfy their morbid craving, sink into the lowest depths of moral degradation, and for a time lead an unnatural vagabond life."

In the same paper Dr. Mott makes it clear that in dipsomania and other forms of inebriety, the inebriety is a result rather than a cause of mental unsoundness.

We describe, then, dipsomania as a form of mental disturbance, characterized by a periodic, uncontrollable, unreasoning impulse towards narcotism, shown by a craving for alcohol or other stimulant narcotic in continuous toxic doses, such periodic impulse being immediately preceded by other symptoms of mental disturbance, such as unreasoning irritability or anger, or a more or less complete change of habits and customs, the actual inebriate outbreak being in its turn followed by an interval of total abstinence from alcohol or other narcotic drug, or by a period of strictly moderate drinking, with no desire for alcohol in quantity.

The dipsomaniac in the sober intervals between the drinking bouts which occur at more or less regular periods, independent of any obvious cause, may, to the untrained observer at all events, show few, if any,

signs of mental disturbance or instability, or he may show more or less obvious psychopathic symptoms—lack of concentration, infirmity of purpose, irritability for which he can assign no cause, or a general neurotic psychasthenic condition.

If such symptoms are constant, they are accentuated before an impending attack, and, if not noticeable during the sober intervals, become noticeable to those who are intimately acquainted with the patient, immediately before such attack, culminating in the uncontrollable drink impulse.

The dipsomaniac impulse or crave comes on more or less suddenly, continues for a time, and passes away, *irrespective of alcohol custom*, except that when alcohol is obtainable, the crave or impulse period is lengthened, the depressant reaction following alcoholic stimulation creating further necessity for more and more frequent doses of the drug.

Dr. Francis Hare says:

"It is obvious that in the purest examples of dipsomania the alcoholism is a mere symptom of the disease—it is certainly not a proximate cause of it. This conclusion is strengthened by the fact that in special circumstances paroxysms of 'non-alcoholic dipsomania' may occur, and continue to recur."

Dr. Hare gives the following case as an example of "non-alcoholic mania":*

"A gentleman of fifty had suffered for years from dipsomaniac outbreaks, recurring at intervals of

* Third Annual Report of the Norwood Sanatorium.

three months. He now has mitral disease, and extreme breathlessness on exertion. There is no alcohol in his immediate environment, nor is he physically able to procure any. Yet his dipsomania continues at the accustomed intervals. He loses his appetite, becomes sleepless, his brain 'working' continuously, in spite of all efforts to prevent it; he has intense irritability of temper, and a continual desire for alcohol in quantity. These symptoms persist for just one week, as they did when he was able to get drink; then they subside somewhat suddenly, and at the subsidence there is a large discharge of urates, followed by polyuria."

This discharge of urates and polyuria following the non-alcoholic outbreak of dipsomaniac symptoms is an interesting fact, as pointing to some metabolic disturbance that may reasonably be responsible for the mental disturbance. If the same were observable after heavy drinking, it would not of course have the same significance, as we should be inclined to put down the alcoholism as the direct cause of it.

Dipsomania may be inherited or acquired. The inheritance may be direct or indirect, by which we mean that the patient may come of actual inebriate stock, or, as would seem to be more common, may come of an actually insane, neurotic, or psychasthenic stock.

There is no evidence, in our opinion, to show that dipsomania can ever be acquired directly as a result of alcoholic self-indulgence. While, however, it is shown by Dr. Hare's observations that all the symptoms of

dipsomania, except the actual inebriety, occur in a person who is deprived of alcohol entirely, and has been so deprived for a considerable period, it is not a proven fact that in a person who has never tasted alcohol there would still be an uncontrollable impulse towards it.

Personally we are of opinion that whether or not alcohol had been tasted, the urgent need for narcotic stimulant on these occasions would almost infallibly lead to the acquirement of the knowledge that such was procurable in alcohol.

This opinion is corroborated by Mr. Shattock, President of the Pathological Section of the Seventieth Annual Meeting of the British Medical Association, when commenting on two cases of dipsomania mentioned by Sir Clifford Allbutt, in the discussion following Dr. Mott's paper on "The Nervous System in Chronic Alcoholism." He asked Sir Clifford Allbutt whether these dipsomaniac patients would have had the desire for alcohol if they had never tasted it, and gave it as his opinion that the desire was relatively independent of experience.

If alcohol were not used by the dipsomaniac, some other stimulant narcotic drug would be used instead; alcohol is merely used because, first of all, its properties are to some extent familiar to all; and, secondly, because it is easily obtainable.

The principal causes of acquired dipsomania are physical and psychical traumatisms.

It seems certain that either may cause dipsomania

in an individual previously in *apparently* sound mental and physical health. But while in such a person a severe traumatism is probably necessary, in an individual of neurasthenic or psychasthenic inheritance a trivial traumatism will bring about the dipsomaniac condition.

Those traumatisms which have been proved to be the origin of other forms of nervous and mental disturbances are those which result in dipsomania and epilepsy, to which dipsomania would seem to be closely allied: Head injuries, concussions, depressed fractures, bullet wounds, sunstroke, etc. Excessive and continuous peripheral nerve irritation may also result in dipsomania, as it does in epilepsy and epileptiform convulsions, such dipsomania ceasing when the cause of the irritation is removed. As an instance of such we have epilepsy and dipsomania, due to depressed fracture of the skull, being cured by trephining and removal of the irritation; and a case of dipsomania, which owed its continuance to the irritation of a prolonged exfoliation of bone in the thigh following a bullet wound, that was cured by the cessation of the exfoliation and the healing up of the wound.

Psychic shock of any kind may result in dipsomania, and will be curable or incurable, according to the degree of psychic injury and the means adopted to relieve it.

Causes that have been mentioned as bringing about other pathological inebriety will also be causes of this special form of inebriety called "dipsomania."

The symptoms of dipsomania are divisible into two distinct sets—symptoms premonitory of the attack, and symptoms of the dipsomaniac outbreak itself.

The premonitory symptoms are analogous to those which are frequently found to precede or herald the onset of an attack of epilepsy (the occurrence of physical auræ excepted), and of certain forms of periodic insanity, and vary from a mere passing irritability to a complete change of character. The commonest symptoms are partly physical and partly mental. They are, on the mental side, irritability of temper in a person usually placid, for no reasonable cause, insomnia, restlessness, and unreasonable actions foreign to the patient's ordinary life. On the physical side are found anorexia, furred tongue, irregular action of the bowels, with or without headache, etc.

These symptoms continue with usually increasing noticeability, especially those on the mental side, for from a few hours to two or three days, and culminate in a sudden uncontrollable impulse to take alcohol in any form that is available to intoxication. The patient himself seldom notices or complains of these symptoms, or, if he does so, seldom connects them with an impending inebriate outbreak, but attributes them to a "liver attack" or some trivial circumstance, and resents any allusion to his ill temper, etc.

The dipsomaniac cannot often explain his reasons for suddenly breaking out into inebriety, and, if he does, usually attributes it to some trifling circumstance, that but for an attack being due would have

had no such effect upon him. Some dipsomaniacs can be got to recognize their premonitory symptoms, and co-operate in measures to prevent the onset of an attack of impulsive inebriety. All inebriates are, however, generally optimistic (except just after a bout), and believe themselves safe in spite of past experiences to the contrary.

An attack of true dipsomania follows on the premonitory symptoms described, generally quite suddenly; the patient leaves work, business, or pleasure, and takes the first opportunity of obtaining alcohol in large quantities, and, once started, the inebriety continues, the patient being never sober till it ends, in a week or longer, by a gastric crisis, making the further retaining of the alcohol an impossibility, or by a sudden termination of the mad impulse and a loathing for further alcoholic drinking.

After the first intoxicating burst of inebriety the drinking is continued for two reasons: one, the continuance of the insane impulse; and, second, an added necessity for alcohol to overcome the depressant reaction of the original and each succeeding dose. These together drive the dipsomaniac to commit acts of violence, of fraud, and of any form of deceit in order to satisfy his craving, acts which in his sober senses he would shrink from in horror and disgust. He loses appetite and sleep, and lives on alcohol almost entirely. He neglects his own personal care and comfort, his family and business, and lives for a time a vagabond life, becoming violent when opposed,

especially in the matter of drink, but otherwise wrapped up in his own artificial alcohol-manufactured existence. He is often intensely busy, full of wonderful schemes, and alternating between affectionate and angry behaviour towards those about him. He is intensely suspicious and cunning, and if prevented from getting drink openly, obtains it secretly and hides it for use in all sorts of out-of-the-way places, and by any means in his power. When the outbreak is ending by gastric disturbance, the dipsomaniac will run through the whole gamut of alcoholic drinks in the endeavour to find one that will stay in his stomach, and will, if prevented from obtaining any other sort of alcohol, drink eau-de-Cologne, methylated spirits—in fact, anything alcoholic that he can get.

In cases where gastric irritability comes on early the impulse or crave will persist while there is an inability to satisfy it.

However the bout ends, the patient then either recovers his normal condition in the course of a few days, or, if the bout has been sufficiently prolonged and ends suddenly from gastric disturbance or other compulsion, he may develop an attack of delirium tremens—a termination that is, however, not common in true dipsomania, for reasons that will be given when discussing delirum tremens later on.

The attack may last from a few days to two or three weeks if untreated. In the early stages of the disease, and sometimes throughout it, the periodic bouts occur at intervals of two, three, six, or twelve

months, but the tendency is for the attacks to become more and more frequent. This is probably due to the grafting of alcohol habit upon the original dipsomaniac impulse, and the consequent gradual lessening of resisting power. There is also a tendency for the attacks themselves to become shorter owing to earlier development of the gastric crisis, and this, owing to the insane impulse having been imperfectly satisfied at one time, may lead to another attack sooner than would have been the case had the attack run its full course and the insane impulse been exhausted.

We have noticed that if a dipsomaniac outbreak is cut short, and the patient allowed liberty before at least a week has elapsed from the time the drinking bout ceased under compulsion, there is always a strong liability to an immediate relapse. This does not occur when the bout runs its full course unchecked.

Dipsomania, if it reaches the chronic stage, differs only slightly from any chronic inebriety in that there are periodic bouts of more excessive drinking, corresponding to some extent to the original periods.

The *Diagnosis* of dipsomania from other periodic inebriety is to be made on the following points :

1. The attacks of inebriety occur at more regular intervals, and cannot be traced to any particular circumstance or opportunity.

2. The observance of premonitory symptoms.

3. The absence of any apparent proximate cause other than general mental irritability for the outbreak.

4. The absence of alcohol indulgence immediately before the outbreak.

In practice the difficulty of diagnosis arises from the fact that the dipsomanic fails to recognize, and his friends often fail to notice, any premonitory symptoms. Also from the fact that attacks of periodic inebriety other than dipsomania may show to the casual observer a regular periodicity which a closer observance will show to be a periodicity not of insane impulse, but a periodicity of circumstance. For instance, a periodic inebriate attack may follow the half-yearly audit, the monthly drawing of a pension, or other regularly recurring circumstance, causing some unusual mental strain or excitement.

The *Prognosis* of dipsomania is not so good as in other forms of periodic inebriety. We think, however, that when the purely mental and psychic nature of the condition and its causes are better appreciated, and when in consequence the treatment becomes more psychic and less physical, there is good ground for hoping that the prognosis may become considerably better. We do not propose to offer any statistics of the results of treatment in this or other forms of inebriety, because we regard existing statistics as extremely unreliable as evidence of what can be done under better conditions than at present exist, and because our statistics can in no way compare with the reported results of the various proprietary drug treatments, of which we shall have more to say in a later chapter.

CHAPTER V

PERIODIC ALCOHOLISM

Other than dipsomania, periodic alcoholism would seem, as we have said already, to depend upon certain constitutional or acquired defects and peculiarities, making moderate use of alcohol impossible.

On account of such peculiarities or defects, the periodic inebriate is unable to take alcohol in any quantity without sooner or later, sometimes at once, sometimes in a few days, bringing about an insistent need for alcohol, or for alcohol action, utterly disproportionate to his power of self-control, and this necessitates an ever-increasing dose ever more frequently taken. A single dose of alcohol, or at most a few doses, brings him into clinically the same mental state as the dipsomaniac before he has commenced to drink. So long as the periodic inebriate other than the dipsomaniac refrains from alcohol, he has no irresistible desire for it, no more need or desire for it than has any other total abstainer who abstains from necessity rather than from choice. The moment, however, that he touches liquor, the scene is completely changed. He may have successfully resisted any

inclination to alcoholic indulgence for months or even years, and yet the first dose is sufficient to destroy a control that seemed adequate, and to arouse a need or desire that appeared dead, but was, in fact, only dormant. A dose of alcohol apparently completely alters his mental outlook; he no longer sees the necessity for total abstinence; caution is gone, reason is gone; without any intention of going to excess he now believes he can do what ten minutes previously he knew he could not do—namely, drink in moderation. He offers little or no resistance against a second dose, and none whatever to a third. At this stage outside influence may check further indulgence; a tactful word of warning, a distraction from his environment until the effects of the drink and its reaction have worn off, may allow the patient to get a fresh grip of himself, averting inebriety for the time being.

If, however, such timely assistance is not at hand, or it is tactlessly given, the patient drinks to intoxication, and goes home or elsewhere that night to bed, to wake up next day, not with the traditional headache—the inebriate rarely has a headache—but with an insistent urgent want or crave for stimulation, such as he knows alcohol alone can give him. If he is an old stager, he will have provided for this by bringing home at least enough drink to stave off this need till he is able to go out again and procure more.

At this stage again the drinking bout can be stopped, but the restraint will now have to be very much greater, its degree corresponding to the amount of crave felt

and the individual's power of resisting it. In a few cases appeal to sense and to feelings of honour and affection may be sufficient; in most cases nothing short of physical restraint, or at least constant supervision and prevention of access to alcohol, will be sufficient to prevent a continuance of the bout of inebriety.

Whenever the craving has been temporarily satisfied, the patient, if he be not noisy and unruly, will promise all sorts of amendment, that he may be trusted to go out, not to touch drink again if he does go out, and so on. The moment, however, that the action of the drug begins to pass away and the reaction begins to set in and to worry him, all such promises are forgotten or utterly disregarded, and nothing short of restraint will stop further potations. The rest of the bout differs in no material way from the bout of the dipsomaniac, except that it rarely ends till the patient is too collapsed to get or retain further doses of his drug. A sort of tolerance is in these cases quickly established, while at first there is great intolerance. A patient will, after the first day's drinking, often "drink himself sober." He is not really sober, but he is able to walk and talk without the casual observer detecting much signs of intoxication. His mental attitude and character, however, have generally changed considerably—a change of which the patient himself is unaware. In *some* cases his intellectual faculties during a bout are in certain respects more acute than normal, but caution, inhibition, and co-ordination of

ideas are impaired or altogether wanting. The cautious speculator, who on account of excessive caution loses chances of success when sober, will under the influence of drink sometimes bring off a coup that in his sober, normal state of mind he would have been too cautious to touch. The intoxicated person is notoriously immune from injury from accident. This would seem to be partly due to a lack of caution, which, while bringing about an accident, prevents him from trying to save himself, his muscles being relaxed instead of being strained to meet a shock; and partly to a mental condition that makes him more impervious than normal to nervous shock. A most dangerous symptom of periodic inebriety is a total or partial amnesia, which oftener than we think follows the taking of large quantities of alcohol. While other faculties remain apparently partially or wholly normal, or only slightly depressed or intensified, there is not infrequently a complete or partial want of memory for actions and events which have occurred during the drunken state. So total may this amnesia be, that, while other faculties are apparently normal and alert, cheques may be signed, and business transacted (often most intelligently transacted), of which next day or next week the patient has no sort of recollection, and he is quite honest when he declines to believe that he did transact such business or sign such cheques.

He gets himself into situations of which he has subsequently no recollection—situations quite contrary

to his usual habits and customs. Acquaintances, finding him in such situations apparently sober and unashamed, form an entirely wrong impression of his character.

So reasonable and natural are some of his actions during this sort of trance life that it is hard to believe that he is actually at such a time under the influence of large doses of alcohol.

A friend and patient of ours came down to see us from London for a short holiday. He arrived just before the dinner hour, to all appearances in every way himself. After dinner we went to an hotel to play billiards; he played well, and gave no indication of anything being wrong till he ordered a liqueur brandy instead of coffee, his usual after-dinner drink, and later on took another, in spite of broad hints from us that he should stick to coffee, he being as a rule under normal conditions a total abstainer.

On leaving the hotel we returned home, and he spent an hour in the drawing-room chatting rationally and apparently soberly on all sorts of subjects with two ladies, who had no idea that he was not perfectly sober. He then went to bed. Before going to bed we thought it wise to look him up, and found him in a drunken sleep on the bed, with all his clothes on. We removed these and got him to bed without waking him. Next morning he had no recollection of the last hundred miles of his journey, and none of his arrival and subsequent doings.

It appeared that he had got into conversation with

a traveller in spirits, and had been persuaded to try some samples of liqueur brandy, with the result that he had no recollection of subsequent events. While staying at the seaside with his family, the same patient was called to London to attend company meetings, and was away three days. On the night of his return we met him at dinner at the house of mutual friends. To all intents and purposes he was sober and took no intoxicants. We parted at 10 p.m. At 11 p.m. we were called to his house and found him in bed complaining of optical hallucinations, which began to trouble him directly the light had been extinguished. He had drunk heavily in London for two days, and then by a violent effort of will had cut off his liquor entirely. Prompt treatment averted an attack of delirium tremens, and in forty-eight hours the patient was himself again and a total abstainer once more.

When a periodic drinking bout is suddenly cut short by outside restraint, the patient suffers considerably. His central nervous system, and, indeed, every nerve of his body, is in a state of unrest. He cannot sleep, he has no appetite, his tongue is furred, his heart flags, and every muscle of his body is shaky and out of control.

The sphygmograph shows a tracing which is distinct evidence of cardiac failure, and a proof that the "sinking feeling" complained of by many patients when deprived of their stimulants is no mere pretext. This heart failure has been very well shown

by Dr. Oscar Jenning and Professor Ball to be by no means one of the least important causes of "crave" in morphia and alcohol removal alike, and we must not lose sight of it as a probable cause of dipsomaniac outbreaks.

As these symptoms gradually subside and become less urgent, self-control again becomes possible. One who has not experienced or who has not actually watched this acute mental and physical distress in an otherwise strong man cannot realize the extent of the suffering which follows an outbreak of periodic inebriety, after some days heavy drinking, when alcohol is suddenly and completely withdrawn.

It is only exceeded in a similar way by the distress following sudden withdrawal of morphia from a morphia habitué.

This condition of distress and suffering lasts from two to three days or longer, according to the length of the bout and the physical and mental health of the patient. Then, if no complications arise, the patient quickly recovers, and in from three to six days from the cessation of drinking is more or less himself again, with no more urgent desire or need for alcoholic liquors than he is quite well able to control if he will. Often there is for a time a distaste or even positive loathing for alcohol.

The inebriate's sobriety will then last, according to the normal control of the patient, his environment, temperament, and his realization of the necessity of total abstinence, for a longer or a shorter period, until some

circumstance proves too much for his self-control, or catches him unawares, and he is induced deliberately, or, as is more often the case, we think, thoughtlessly to break his total abstinence, without *any thought of excess.* When such lapse occurs, the same sequence of events is invariably the result in those cases which depend on alcohol for the lighting up of the dormant but ever-present defects and peculiarities which make inebriety inevitable and moderate drinking impossible.

Any circumstance—and there are a dozen such, occurring in the daily life of every one of us—that will induce us to take an alcoholic drink, is sufficient to originate in a periodic inebriate an uncontrolled and uncontrollable bout of inebriety. Circumstances, moreover, that would not affect us, will, owing to his defects and peculiarities of psychic and physical constitution, become strong inducements to the inebriate. He is beset either by stronger inducements to alcohol indulgence, with only ordinary control to combat them, or by ordinary inducements and lesser control.

A few, very few, periodic inebriates would seem to be able to take alcohol in strict moderation, and only to relapse into inebriety whenever such strict moderation is in any way exceeded. These patients, by persisting in an adherence to moderate drinking, are, however, constantly "playing with fire," and are in worse danger than is the patient who is *obliged* to be a total abstainer if he would avoid drunkenness.

CHAPTER VI

CHRONIC INEBRIETY

The predisposing causes of chronic inebriety are those of periodic inebriety, differing in degree rather than in kind. In addition, however, to the psychoneurotic defects or abnormalities that predispose to both chronic and periodic inebriety, in chronic inebriety there is an inherent or acquired tolerance of alcohol in large and continuous doses. This peculiar and abnormal tolerance enables its possessor to take large doses of alcohol with apparently no deleterious effect for some time—for months, and even years.

Alcohol action, however, like other actions, is followed by an equal and opposite reaction, and such reaction causes a need on the part of such persons for further alcoholic action. Abnormal tolerance enables such further alcoholic action to be obtained with apparent impunity, and so leads on the individual to further and more and more frequent resort to his stimulant, until the amount of alcohol necessary to counteract the reaction of previous doses and render him comfortable, and, as he thinks, fit to attend to

the affairs of everyday life, is sufficient not only for this purpose, but also keeps him in a chronic state of intoxication to a greater or less degree, such degree becoming progressively greater.

In the beginning of the career of the chronic inebriate alcohol is taken for precisely the same reasons as it is taken by the moderate drinker. In addition, he takes it for its stimulant effect, to whip up a flagging brain, to enable him to accomplish an extra stress of work, or enable him to take pleasures when he is physically unfit to do so, and should be resting. He also takes it for its narcotic effect, to induce sleep, to drive away care, worries, and anxieties that owing to a defective psychoneurotic constitution he is unable to face. Rarely, in our opinion, does he resort to alcohol from a desire for drunkenness for mere drunkenness' sake.

Chronic inebriety must, we think, be regarded as primarily the result of a psychoneurotic defect, which renders the chronic inebriate unable to face the stress of ordinary everyday life without some outside assistance, and this assistance he finds in alcohol; and, secondly, as the result of a want of control in the use of this assistance, partly inherent, and partly acquired as the result of custom and tolerance. He may need the assistance of alcohol, or may fancy he needs it, to carry on a life of strenuous effort directed towards work, or directed towards mere self-gratifying pleasures. In not a few cases the assistance he needs, or is thought to need, is suggested by his doctor and

begun in all innocence of possible consequences. In our opinion the prescription of alcohol for the purpose of enabling an individual to carry on a life of excessive toil or pleasure, which he cannot carry on without it, is courting disaster.

We are not satisfied that an abnormal need for alcohol, with an abnormal lack of control over such need, can be acquired by a normally constituted person from mere careless indulgence in alcohol as a beverage. We are, however, of opinion that they can be so acquired when to an abnormal need or desire for alcohol, and a defective control, is added a partial or complete ignorance of the danger attaching to such careless indulgence.

That such ignorance exists is certain, and is not greatly to be wondered at when there also exists such a diversity of opinion as to the merits and demerits of alcohol among different members of the medical profession.

Chronic inebriates when they come under our care have reached a condition in which there is always evidence of psychoneurotic disturbances; and though prolonged abstinence causes these to disappear wholly or partially in many cases, on the other hand they persist after years of total abstinence, and often are proved to have been present before the inebriety commenced, and to be the cause rather than the result of such inebriety.

Chronic alcoholism or inebriety has been said to be merely a habit, the result of prolonged custom.

Dr. Sainsbury* goes to an enormous expenditure of trouble to prove this. Were this so, we think there would be many more chronic inebriates than at present exist, seeing the universal usage of alcohol.

We all know of cases in which morphia and opium have been prescribed and taken for long periods, and given up again, without any morphia habit being formed. We also know of many cases in which persons have experimented with these drugs for a short time, to find themselves, when they wished to give them up, bound and enslaved by them. We know that in our student days many of our fellow-students indulged freely and carelessly in alcohol to excess, and that, while one or two became slaves to it, the greater number were able to give it up at will, with little or no apparent effort. It would therefore seem that something more than careless and long-continued custom is generally necessary to bring about the condition of mind and body necessary to produce chronic inebriety; and that something would seem to be a defective or perverted judgment and control, or an inherent hypersensitiveness to mental and physical pain, discomfort, or distress, making the complete and immediate relief of such an urgent necessity to the individual concerned. The chronic inebriate, and, indeed, any inebriate, when he is cut off from alcohol, suffers a need for it that is out of all proportion to his power of control over that need, or his power to bear unaided the mental and physical dis-

* "Drugs and Drug Habits," by Dr. H. Sainsbury.

tress which is the cause of that need. There is no drug which relieves this mental and physical distress in the same rapid and complete manner as does alcohol. That the relief is only temporary matters not to the sufferer when the remedy is ready to hand the moment the distress again begins to make its appearance. This intense physical and mental suffering of alcoholic reaction is greater than anyone without personal experience has any conception of, and accounts for the extraordinary length to which an individual suffering from it will go in order to obtain relief. Some persons are, moreover, intensely hypersensitive to the pangs of alcohol suppression; others far less so. The intense suffering is, however, of short duration, rarely lasting, except in cases of dipsomania, for more than from two to three days. It differs from the suffering entailed by morphia suppression in that, while the former is far longer continued, and is worst in the final stages of suppression and after suppression is complete, the latter is worst in the early stages of suppression, and rapidly subsides, after complete suppression has been effected.

Chronic alcohol inebriety, then, may be regarded as the result of alcohol usage by an individual in some way predisposed to abnormal effects of alcohol action and reaction, and, as a result of alcohol custom by persons with a predisposition to derive some material and apparently much-needed physical or mental benefit from alcohol action, together with a want of

sufficient and normal self-control over the need resulting from such predisposition.

The earliest symptom of chronic alcohol inebriety is the necessity for alcohol (as the most easily and best-known stimulant or narcotic stimulant available) to enable an individual to do what the normally-constituted person should be able to do without it. At this period there is rarely actual drunkenness, and often none. As the use of alcohol becomes more frequent, however, the need becomes also more frequent and more urgent, and the symptoms of chronic inebriety become more marked. The patient loses interest in life. Once keen and quick to reason, quick to grasp and grapple with a situation, quick to pass judgment, he tends to become more and more indifferent. He fails to carry his arguments to a conclusion, partly for want of co-ordination in ideas, partly from incipient amnesia, and partly from want of sustained interest and power of concentration. He gradually ceases to take any interest in his personal appearance, and either treats the opinions of others thereon with indifference, or seeks to excuse himself in some more or less plausible way. Later he begins to lose all self-respect, and ceases to desire the respect of others.

He has some time ago become careless of the truth, and is secretive and deceptive as regards his particular failing. He now becomes deceptive and wanting in rectitude as regards other matters, mainly, we think, in an endeavour to avoid discussion and to avail him-

self of the easiest way out of any trouble—a fault that is a mere exaggeration of a lack of moral stamina, which was probably always present in a more controlled degree. In deceiving others, or attempting to to do so, he also very frequently equally deceives himself.

In many cases he gradually recognizes how incapable he is, but will not own it, and brings cunning to bear to cover incapacity, and in so doing frequently involves himself still further in a hopeless tangle of deceit.

Finally, he ceases to make any effort to appear other than he is; he loses all care for his person and all interest in his family, etc. The intellectual faculties follow the moral faculties on the downward grade. Next the physical powers fail, partly from the effects of alcohol in itself, and partly from failure to comply with the necessary hygienic laws of life. It is in chronic inebriety that we find those physical pathological changes which are associated with alcoholism, and which are rarely seen in other forms of inebriety. Many persons who drink heavily, but never merit the term "inebriate" (seeing that they never lose control over themselves, and can, if they choose, stop drinking at any time)—many such persons suffer from alcoholic poisoning of the physical system in a way that is not met with in the true inebriate. Such are the chronic alcoholics met with in hospitals, suffering from cirrhosis of the liver, cardiac diseases, chronic Bright's disease, etc. These diseases are

rarely seen in a better-class inebriate retreat or in asylums among the true inebriates, but are found to a somewhat larger extent in State inebriate reformatories—a fact suggestive that alcohol alone is not so altogether responsible for these diseases as it has long been thought to be.

CHAPTER VII

COMPLICATIONS OF ALCOHOL INEBRIETY: DELIRIUM TREMENS

Two forms of delirium tremens are recognized—idiopathic and traumatic.

The following is the description of delirium tremens found in Taylor's "Practice of Medicine":

"This" (delirium tremens) "commonly occurs in those who habitually drink freely, who may have been not infrequently drunk, and who have recently been taking unusual quantities continuously for some days. It is often indeed stated that a patient *had left off drinking for two or three days before the symptoms come on;** but as a distaste for drink is sometimes one of the first manifestations of the disease, it is probable that this is an explanation of the apparent anomaly. Delirium tremens is also sometimes determined in habitual drinkers by some severe shock, such as the fracture of a bone, or the onset of pneumonia, erysipelas, or other acute disease, without evidence of any bout of drinking beyond the daily average."

This description of the etiology and course of

* The italics are ours.

delirium tremens is the one we have been taught, and the one that would be given by most medical men who have not had the opportunity of studying the inebriate. Those of us, however, who have had this opportunity, are not inclined to regard the disease as due to the direct toxic effects of alcohol, though to what it is actually due we are at present unable to say. That, however, it should be recognized as not due to the direct toxic effects of alcohol is, we think, important, from both a scientific and practical point of view.

The only hypothesis which has been advanced is a view set forth by Professor Janregg of Vienna, that the immediately responsible toxic substance is an "anti-alcohol," which is generated by alcohol in the system. Dr. Francis Hare,* to whom we are indebted for bringing this view to our notice, says of it:

"The view is a mere hypothesis; nevertheless, it is more widely consistent with the clinical history and phenomena of chronic alcoholism, of delirium tremens, and of alcoholic epilepsy, than any other hitherto advanced. By it we may explain—

"1. The acquisition of tolerance; the steadily increasing amount of alcohol needed to cause intoxication, or even alcoholic euphoria.

"2. The onset of delirium tremens or alcoholic epilepsy after a definite interval following the sudden retrenchment or withdrawal of alcohol.

"3. The marked tendency exhibited by delirium

* Third Annual Report of the Norwood Sanatorium.

tremens when treated without alcohol to run a course of fairly definite duration, and end by the crisis of sleep.

"4. The fact that alcohol modifies the delirium but prolongs its duration.

"5. The loss of tolerance after a period of abstinence.

"6. The special proneness of delirium tremens to develop in those who have established a high grade of tolerance—in chronic inebriates who have been long accustomed to take large quantities of alcohol without showing signs of intoxication. It would, of course, be in such patients that the largest amounts of 'anti-alcohol' would have been found in the system.

"7. The asserted occasional occurrence of delirium tremens in the moderate drinker and abstainer. It is obvious that the necessity for secrecy would determine the exact form of drinking, which would tend to establish a tolerance of alcohol."

As Dr. Hare says, all these points, which are not explained to our knowledge by any other hypothesis, are explained by Professor Janregg's theory, and while both Dr. Hare and we ourselves started out on our study of inebriety with the belief that delirium tremens and alcoholic epilepsy were the direct result of the toxic effect of alcohol, clinical experience has tended more and more to modify our view and make us believe that whatever be the actual proximate cause of these complications of inebriety, it is not the toxic effects of alcohol.

It is undoubtedly a fact that delirium tremens tends to occur, not while the normal or usual large

quantity, or an excess of the usual large quantity, of alcohol is being taken, but when either a considerable reduction or entire cessation of the alcohol dosage has suddenly taken place, and generally a marked interval of time has elapsed after that sudden reduction or suppression. This fact also explains the onset of delirium tremens in patients who are heavy drinkers, and who have been suddenly laid up with some acute disease or by some severe accident. The shock of the accident or sudden illness, if not the direct orders of the doctor in attendance, will entail in such cases either a complete suppression of alcohol or a very material reduction of the daily dose. In these cases the shock will probably also be a determining factor of the delirium.

Under such conditions the delirium rarely comes on until two or three days after the onset of the illness or accident, as it also does in ordinary cases from two to five days after the alcohol has been stopped. We have seen a case which began *on the tenth day* of abstinence—and ended fatally—in an extremely debilitated chronic inebriate.

Dr. Hare* gives from forty to seventy-two hours as the interval most common in his own observation, which elapses between the suppression of the alcohol and the commencement of the symptoms of delirium tremens.

Acting on the conclusion that the delirium was due, not to the toxic action of alcohol, but to its too rapid withdrawal, Dr. Hare has since October, 1907, given

* Third Report of the Norwood Sanatorium.

up sudden withdrawal in all cases of chronic alcoholism and in some cases of periodic alcoholism, where it seemed indicated, with the result that from this date up to the time of the last report (three years) there has been *one case of delirium tremens only*, and this occurred because the patient's stomach refused to retain alcohol on admission. "During the two and a half years ending October, 1907," he says, "there occurred in this institution twelve cases of delirium tremens. In these cases there had been sudden suppression of alcohol, except in two cases admitted after the symptoms had actually begun, and where there was no means of accurately gauging how far the suppression had been carried before admission."

In the six years we have been at work at our present institution there have occurred three cases of delirium tremens. We, like Dr. Hare, began by sudden withdrawal of all alcohol, giving tonic, sedative, aperient, and diaphoretic drugs in its place. Since the last case, which occurred here in 1908,* we have made a practice of tapering as quickly as possible, but as slowly as seems indicated, in all cases of chronic inebriety, and in some cases of prolonged periodic inebriety, and we are convinced that in so doing we have prevented the onset of delirium tremens on more than one occasion. We are aware that a large section

* Since writing the above another case of delirium tremens has occurred in our practice, owing to the fact that there was no evidence obtainable before its occurrence of the enormous quantity of alcohol that was being consumed, with the result that the tapering was far too rapid.

of the profession, if not the majority, differ from these views, and that among those of us who are entirely concerned with inebriety, one at least so differs. The question is, as we have said, an important one, and capable of easy solution by the clinical test of a sufficient number of cases. A case of delirium tremens has just occurred in our practice, in which the patient was unable to retain any alcohol after a prolonged bout.

Dr. Hare quotes the following interesting cases, as showing indication for tapering; and also, we think, showing how a judicious and timely administration of alcohol tends to prevent delirium tremens:

Case I.—A tradesman of forty-three had for ten years been taking whisky with strict regularity. Commencing with three "nips" a day, he had steadily increased until he was taking a bottle and a half in the twenty-four hours. He had never been in the slightest degree intoxicated; indeed, it was hardly known locally that he indulged at all. He entered the sanatorium because he found that his memory and business capacity were deteriorating. He was tapered down rather rapidly. On the third day after admission he was taking at the rate of six ounces per diem only. That night he slept hardly at all, and in the morning was restless, and had much muscular tremor, especially in the oral muscles when he spoke. On raising his allowance to ten ounces these symptoms rapidly ceased, and three days later he required no alcohol.

Case II.—An officer had been living for the last

year at a nursing home. He was crippled by peripheral neuritis, and had not been out of doors for twelve months. He was obese, and had granular kidneys. His only occupations were reading and whisky drinking. For years he had taken exactly six bottles a week. He had never been intoxicated. Before entering the sanatorium, which he did in the forenoon, he had taken about five ounces of whisky. Thereafter he took no more for some hours. At 5 p.m., having had no alcohol since admission, he became restless and his expression altered, his attention wandered, and his eyes had a frightened look. At 6 p.m., after being put to bed, he was brushing non-existent insects off his face. From 6 p.m. to 10 p.m. he was given whisky to the extent of sixteen or seventeen ounces; this brought his intake for the day up to its usual level. At 10 p.m. he was decidedly better. At 10.30 p.m. he went to sleep and had an excellent night, waking in the morning in his usual condition.

The further course of the case was simple. His whisky was cautiously tapered off in seven days without the occurrence of further disquieting symptoms. In this case the patient's health was so broken down that a severe attack of delirium tremens would easily have proved fatal.

Case III.—Tradesman, aged thirty-six, had for ten years taken about a bottle of whisky a day, with some beer. He frequently got intoxicated, but only slightly so. On admission he was sober, but had taken nearly his usual allowance. On the succeeding four

days he was given ten ounces, seven ounces, five ounces, and four ounces respectively. On the night of the fourth day he slept badly for the first time since admission. On the following morning he was quite delusional. His allowance was promptly raised to ten ounces, and more than half of this was given at once. He had much sleep through that day and the succeeding night, and woke the following morning quite rational. He was "tapered off" during the next three days without further trouble.

The symptoms of delirium tremens are too well known to need any further description here.

With knowledge of the history of the case and knowledge of symptoms, there should be no difficulty in the diagnosis. In debilitated subjects the delirium may be low and muttering, of a typhoid type, rather than active and boisterous, from the first, or very quickly become so. An increased pallor of the face, general prostration, muttering delirium, or semicoma, and rapid low-tension pulse, are all signs of a bad prognosis. In favourable cases the disease ends by crisis and sleep in from forty to sixty hours. In a few cases the patient is still delirious after the first sleep, but is rational, then, after the second sleep, which usually follows rapidly on the heels of the first.

When death occurs, it is from exhaustion, cardiac failure, which may be quite sudden, on the third or fourth day, or later, or from pneumonia.

Pathological changes found after death from delirium tremens are by no means pronounced. There is some

congestion of the cortex of the brain, the basis of the lungs, and of the kidneys. The urine of patients in alcoholic delirium invariably shows a considerable quantity of albumin.

Treatment.—Although the treatment of delirium tremens has been well described so often, we may be forgiven for repeating it in the light of the most modern experience of those who have more frequently than others to treat this disease.

The disease being one tending to rapid exhaustion, a nourishing and stimulating plan of treatment is indicated rather than a depressant. A full dose of aperient should be given at the first indication of the disease, and, as shown by the above cases, no harm and much good may be done, *if it be done soon enough*, by the judicious administration of alcohol. When once the attack has developed, however, alcohol should be avoided, unless absolutely necessary to combat extreme prostration. It modifies the delirium but prolongs its duration, and therefore tends to produce further exhaustion.

Good nursing is essential, and there should be sufficient relays of attendants to make unnecessary any resort to mechanical restraint, as it never, we think, should be necessary. All articles that might be used to the danger of the patient or his attendants should be removed from the room. The room is better kept darkened to some extent. Light nourishment should be given frequently in small quantities, and is taken without much trouble. There is a

difference of opinion regarding the use of sedative drugs. In using them we must always remember that the digestive and assimilative functions are greatly in abeyance, and that such drugs may remain only partially absorbed until these functions begin to act again, when one is liable to get a sudden over-effect from the accumulated unabsorbed doses. Our own practice is to give ammonium bromide in 30 to 40 grain doses every three hours, largely diluted, from the commencement of the active symptoms. Opiates and, we think, chloral, are better withheld, unless sleep is overlong delayed, when a hypodermic dose of morphia may be given with advantage, or chloral may be added to the bromide in doses of 20 grains or more every four hours if the heart is showing no sign of failure.

For reasons previously given, alcohol should be always withheld unless cardiac failure urgently calls for it, and even then strychnine and digitalis are probably better than alcohol in such cases.

Ammonium and potassium acetate have been used and strongly commended as eliminants, with a view to shortening the attack, and, we think, should be used. Hyoscine has its advocates as of value in quieting the violence of the delirium, and anything that will conserve the patient's strength should certainly not be neglected. Once the crisis is past and sleep occurs, the convalescence is usually very rapid. Occasionally, however, delusions persist for some weeks or months, especially those of an auditory nature.

CHAPTER VIII

COMPLICATIONS OF ALCOHOL INEBRIETY: EPILEPSY, ALBUMINURIA, INSOMNIA

Epilepsy.—Epilepsy may occur as a complication of periodic and chronic alcoholism, in which case it usually comes on after the cessation of a prolonged bout, or when the continuous nipping of the chronic inebriate is for any reason checked. It also occurs as a complication or as an alternative to an outbreak of true dipsomania, to which condition it is intimately related. Apart from the epileptic equivalents which are so commonly met with in dipsomania, when the patient is observed during an abortive attack, such as emotional depression and anxiety, combined with more less severe disorders of consciousness, nameless and groundless fears, and wandering impulses, not infrequently there have been observed cases of dipsomania, in which attacks of epilepsy and inebriate outbreaks are mixed; sometimes an attack being that of epilepsy without drinking, at others an inebriate outbreak without the epileptic attack (*grand* or *petit mal*) would occur. Such cases have been reported by Chotzen.*

* "Mischzuständ bei Epilepsie und Alcoholismus," by F. Chotzen.

Epilepsy occurring as a complication of alcoholism does not seem to differ in any essential from non-alcoholic epilepsy. It seems, however, to depend on alcoholic indulgence for its occurrence. No patient whom we have had under our care ever had an epileptic attack (except one in whose case alcoholism of a dipsomaniac type alternated with epilepsy) unless he had been recently drinking to excess. The attack may be one of *petit mal* or *grand mal.* Both in epilepsy and delirium tremens an examination of the urine will disclose a high percentage of albumin, and we agree with Dr. Francis Hare in regarding such a degree of albuminuria as a warning of dangers ahead, in the shape of delirium tremens and epilepsy, and as strong indication for care in tapering off such a patient's alcohol rations. We do not pretend to advance any explanation of the connection between albuminuria and delirium tremens or epilepsy. Probably the high percentage of albumin has no causal connection at all with either, and is only a proof that large quantities of alcohol have been taken over a prolonged period, to the detriment of the renal functions.

Albuminuria.—Not nearly enough attention has been paid to the presence and significance of albumin in the urine as a result of alcohol indulgence. Speaking generally, alcohol indulgence of any great magnitude or duration, but more especially duration, results in albumin being found on an examination of the urine, in larger or smaller amount, where there is no

evidence of organic kidney mischief, as evidenced by the presence of casts, etc. This albumin will vary in amount from a trace to 10 per cent., or even more; where it is more abundant, there is generally evidence of organic kidney disease.

This albumin gradually tends to disappear as the alcohol is withdrawn, or after it has been withdrawn; but, not infrequently, there is a *temporary increase* in the amount of albumin after *sudden withdrawal*, a circumstance which would make us pause and consider once more the wisdom of such sudden withdrawal.

I am indebted once more to Dr. Francis Hare* for the following figures:

"During one year 67 cases of alcoholism were systematically examined for albuminuria (women being excluded on account of obvious possible fallacies). The urine was boiled with nitric acid, and allowed to stand for twenty-four hours in a graduated test-tube, the amount of albumin being then read off.

"All cases were examined on the day of admission, or the next day.

"Of these 67 cases, 25 had ceased drinking when the examination was made. Of these, 8 showed albumin varying in quantity from a mere trace to 2 per cent. Seventeen showed no albumin. It is significant that the former had ceased drinking two or three days only, the latter for six days or more.

"Of the 67 cases, 42 were still drinking more or

* Fourth Annual Report of the Norwood Sanatorium.

less heavily when examination was first made. Of these 42, 5 *only* were free from albuminuria: 1 had been drinking for two days only, having been an abstainer for several weeks previously; another had drunk beer only, and that merely to the extent of three or four glasses daily for some days before; 3, however, had been drinking spirits heavily. The remaining 37 showed albumin at the first examination. In 3 of these cases there was undoubtedly present chronic nephritis, as evidenced by numerous granular casts; the percentage of albumin fell markedly with the withdrawal of alcohol—from 20 per cent., 10 per cent., and 3 per cent., down to 1 per cent., 0·5 per cent., and a 'distinct trace' respectively. Yet both albumin and casts were present at the patient's discharge. In the remaining 34 cases the albumin completely cleared up during the course of treatment. In only 1 of these cases were granular casts observed, and here they were very few in number. The amount of albumin found on admission varied from a small quantity (say 0·5 per cent.) up to 5, 7, 8, 10 and, in 1 case, 25 per cent."

The almost constant appearance of albumin in the urine of heavy drinkers would appear to be of importance only in so far as the continuance of the inebriety is concerned. Remove the inebriety, and the albuminuria ceases, and the kidneys, in the absence of granular casts, would seem to be little the worse. It is evident, however, that such quantities of albumin appearing in the urine of inebriates

urgently calls for a removal of the cause if further ill-effects are to be prevented.

A high percentage of albuminuria without granular casts in alcohol habitués points to continual excessive drinking; it is a toxic effect of alcohol, and may show itself as such when other symptoms of alcoholism are wanting. When present in any quantity, it is evidence that though the amount of alcohol owned to by the patient may not be very great for that particular individual, at all events it is a toxic amount, and should be reduced or, better, withdrawn entirely.

Other complications met with in treating inebriety are digestive disturbances due to overeating, or over-drinking of alcoholic beverages. These arise in the main from two causes—namely, from the injury (usually temporary) done to the stomach and liver by alcoholic excess, and the want of restraint shown in eating and drinking, when the stomach is once more fit for its work. Just as the inebriate shows a want of restraint in his drinking of alcoholic liquor, so he also shows a want of restraint over his other appetites, varying from a careless thoughtlessness to what can only be described as greed.

Such complications as arise from these sources do not merit any further mention.

Insomnia.—This is a very constant symptom and complication of all forms of inebriety, and is not infrequently one of the chief factors of its causation. It presents itself in two forms. In one the patient, no matter what exercise he has had, no matter how

sleepy he may be, or at what hour he goes to bed, is unable to get to sleep. In the other, the patient gets to sleep all right on going to bed, but wakes after an hour or two, and is unable to get to sleep again perhaps till daylight, and then sleeps when he should be getting up. The first form is, we think, the commonest among periodic drinkers, especially among true dipsomaniacs, and is a great factor in the causation of the inebriety in these latter. There are often definite periods of insomnia, which precede the inebriate's attack for some nights. The second form is more commonly met with in chronic inebriety, and is perhaps accounted for by the fact that when drinking the patient goes to bed and sleeps a semi-drunken sleep for the first part of the night, and then wakes when the effect of the alcohol is wearing off. When this form of insomnia occurs during periods of abstinence from alcohol, may it not be simply a persistence of the waking habit? In our opinion it is so.

When not taking alcohol, many inebriates are unable to sleep, or remain asleep, and acquire a custom of taking some one or other of the many hypnotic drugs. They often gradually acquire a real habit of one or other of these, and also an enormous tolerance of them. An ordinary dose of any hypnotic drug is rarely efficient in procuring a night's sleep for these patients. One patient of ours got only four or five hours' sleep from half an ounce of paraldehyde; others have taken, on their own prescription, 80 grains of trional, or 40 grains of veronal constantly. We have

seen one case of acquired chronic veronal poisoning and one of chronic trional poisoning in alcoholic patients, as a result of self-administration of these drugs.

These forms of insomnia do not include what we would call, in contradistinction to them, the *acute* insomnia, which invariably follows the withdrawal of alcohol, both during the withdrawal, and immediately following it. This occurs to a greater or lesser degree in those who are, normally, good sleepers; it is of a quite temporary nature, and these sleep naturally again in a few days after the completion of the withdrawal. We shall refer to the treatment of these forms of insomnia when we deal with treatment generally.

Alcohol is undoubtedly largely used as an hypnotic (a night-cap), and becomes unnecessary when the insomnia for which it is taken is removed; but unless and until the insomnia is removed to withdraw alcohol will only lead to relapse into its use or of that of some other hypnotic drug. The want of regular and sufficient sleep or the acquirement of sleep only by the use of drugs, which is at its best but a poor substitute for natural sleep, is without doubt another symptom of those psychopathic states which lead to periodic and chronic alcoholism. Insomnia is itself often due to mental disturbance or disturbance of psychic equilibrium, and so, when alcohol is taken as a remedy, we have a vicious circle set up, which it is essential should be thoroughly broken up if cure is to result from any treatment.

We do not propose here to touch upon those organic diseases that result from alcoholism, or are caused or partially caused or aggravated by alcoholism, as they are fully dealt with in all medical textbooks.

CHAPTER IX

THE PREVENTIVE TREATMENT OF ALCOHOL INEBRIETY

Putting aside such a preventive measure as the complete prohibition of alcohol by law, a form of legislation which is, to say the least of it, grandmotherly and practically impossible, let us consider what means we have at our disposal for the prevention of pathological inebriety.

We have primarily to bear in mind that pathological inebriety depends upon some degree of mental unsoundness, or on less pronounced psychophysical defects and peculiarities, which either make the effects of alcohol unusually attractive and difficult to resist or abnormally pronounced. We have next to bear in mind that such mental unsoundness and such psychophysical peculiarities as tend to produce pathological inebriety are in many cases an hereditary legacy. We have likewise to bear in mind that alcoholic excess tends to produce degeneration, and that degeneration predisposes to alcoholism.

The first principle, then, in the prevention of alcoholism is to teach temperance to those capable

of appreciating temperance principles, and to train the young to such self-control as will enable them to appreciate and to carry out such temperance principles.

Intemperance in alcoholic drinks is only one thing in which the inebriate is intemperate. He is in many cases intemperate in all things, and we venture to think that a general intemperance in eating and drinking, and in the use of present-day luxuries, is a fault of the present and rising generation that is not receiving the attention that it merits. Intemperance in childhood, in small matters, unchecked, together with want of self-control unrecognized and untreated, is an undoubted predisposing cause of habitual inebriety with regard to drink and drugs in after-life. It is a predisposing cause of other habits and perversions, less obvious, perhaps, but equally pernicious to the individual and to the nation.

Many individuals show slight psychic and mental defects in very early life which no serious attempt is made to correct, either at home or at school. These defects and peculiarities are not regarded as of much importance, and the child is expected to grow out of them, when, as a matter of fact, unless they are corrected skilfully and tactfully, he is much more likely to grow into them.

Self-discipline learnt at home and at school, in childhood, if it is properly taught, is one of the best prophylactics against the development of such psycho-physical defects and peculiarities as lead to inebriety

in after-life. Many obvious mental and moral defects and peculiarities in children may, we think, if better attention is paid to them, be removed, or at least checked in their development. As carried on in our schools, physical training is excellent, but we should like to see more attention given to *psychic* training. It is, however, even more at home than at school that self-discipline is neglected, or at least not encouraged. There can be no doubt that the home training of children in all classes has altered entirely in the last thirty or forty years, and still more in the last fifty or sixty years. In many ways it has altered for the better, but there is a decided tendency to replace the old strict upbringing by no upbringing at all.

We are of the opinion that many inebriates owe their condition primarily to congenital defect and peculiarity, and secondarily *to the development* rather than the inhibition or removal of such defect and peculiarity by faulty training and education. We are also of the opinion that not a few owe their condition to defects and peculiarities *acquired* from such neglect in early life.

The efficient teaching of simple physiology, personal hygiene, elementary and practical psychology in our schools, with more attention to the child's moral character at home, and the tactful correction of peculiarities and defects in such character, would, in our opinion, go farther than is generally supposed in the prevention of alcohol inebriety.

There is, however, little hope of much improve-

ment in this respect until the medical profession as a whole pays more attention to psychological medicine than it does at present. It is to the medical profession that the public must look for teaching in this respect.

Psychotherapy has one of its largest fields for work in the treatment of children, and the effect of such work would, we think, show itself in after-life to the benefit of the race.

By its means a child may be taught self-discipline, moral defects may be removed, or at all events controlled in a way that is not nearly as well understood and appreciated as it should be. We look to psychotherapy to take the place, much more efficiently, much more scientifically, and much more humanely, of the old method of child discipline and training, and, in many cases, of the utter want of home training, in all classes of society.

Hypnotism is not an essential to psychic treatment by suggestion, and is not necessary in the psychic treatment of the smaller peculiarities of childhood. In suggesting psychotherapy as a home treatment for moral defects* and mental disturbance in children, we are not advocating the use of hypnotic treatment by parents and schoolmasters, but merely the principles of, and necessity for, the application of the

* For further particulars of psychotherapy in childhood, see "Hypnotism and Suggestion" and "Hypnotism and Treatment by Suggestion," by Dr. Milne Bramwell, and other works on psychotherapeutics.

principles of psychic treatment in children who show such defects and peculiarities. Where inebriety is established, and owing to severe mental defects is incurable, preventive measures are necessary for the protection of succeeding generations, and of the children of such incurable inebriates. If we are to prevent inebriety, it is necessary to control the main source of inebriate supply—namely, the inebriate himself. *He must be cured where cure is possible, and isolated when incurable.* Temperance societies do good by preaching teetotalism to those capable of listening to and acting upon reasonable appeal, but they do not touch the thousands of inebriates who are by example and precept making other inebriates daily.

"These persons are not in the least affected by temperance efforts; they continue to propagate drunkenness, and thereby nullify the good results of temperance efforts. Their children, born of defective parents, and educated by their environment, grow up without a chance of decent life, and constitute the reserve from which the strength of our present army of inebriates is maintained. Truly we have neglected in the past, and are still neglecting, the main source of the drunkard supply—the drunkard himself. Cripple that, and we should soon see some good result from our work."* It is to the better psychic education and training of the young, and to a better control of the pathological drunkard, that we must

* Dr. R. W. Branthwaite in the Second Norman Kerr Lecture

look for the prevention of inebriety, not to prohibition laws.

Efficient moral training of the young at home and at school, efficient control of the inebriate by legislation, proper understanding of the causation of inebriety, and a proper knowledge of the action of alcohol and other similar drugs, and the proper limits of their usage—these factors in the rising generation will go far to lessen the number of inebriates and other degenerates in the next.

While we write, an Act is before Parliament which will, if carried through in its entirety, do for the inebriate and for the nation what the Lunacy Laws have done for those suffering from grosser forms of mental disease and defect.

CHAPTER X

A GENERAL CONSIDERATION OF THE PRESENT-DAY TREATMENTS OF ALCOHOL INEBRIETY

When we consider how long we have been treating inebriety or, rather, how long we have been making some sort of attempt at treating inebriety, it seems at first glance to be astonishing that there should still exist so much diversity of opinion as to what is and is not the proper treatment.

It is only comparatively recently that any medical treatment has been attempted. Formerly the treatment meted out to the inebriate was, when there was any, penal, and has varied from a fine or short term of imprisonment to capital punishment.

It seems to us that the great diversity of opinion held to-day with regard to the proper treatment of the inebriate arises mainly from a want of knowledge of him and his condition. Amongst those of us who have made a special study of the subject, there are only minor differences of opinion as to the treatment of inebriety; and these would seem to arise from an exaggerated regard for the physical element in the condition on the one side, and for the psychical element

on the other. The result is that each school is apt to lose sight of one or other of these elements of the inebriate state.

Both these elements are present, and both require treatment. At the same time they are not equally present in all cases. In one case the physical side predominates, in another the mental. Treatment that is almost entirely mental will cure or benefit the case of inebriety in which the cause is mostly mental; treatment which is mostly physical the case which is mainly physical. There are at present in this country three methods of treatment, each having its own advocates. These we will call *treatment by isolation*, *treatment by specific drugs*, and *treatment by suggestion*.

Treatment by Isolation is the oldest form of treatment. Its main features are isolation of the patient from all excess to alcohol, and the restoration of physical health, the idea being that with restored health, and his appetite for alcohol lost for want of exercise of it, he will carry on the total abstinence when he leaves the institution. In some cases there is some attempt made at treating the psychic side of the inebriety by personal appeal, persuasion, argument, and so on; but the keynote of the treatment is first, last, and all the time, routine, discipline, and enforced total abstinence, little or no difference being made between one patient and another.

This form of treatment is successful in a good many

cases; its want of success in many cases, and the fact that an absence from home for a considerable length of time is necessary, caused an entirely new method of treatment to come into vogue:

Treatment by Specific Drugs.—In the beginning this treatment was almost entirely in the hands of the proprietors and vendors of secret "drug cures."

"The Keeley Treatment" and similar treatments have been successful in curing a good many cases of alcoholism. But, like the isolation treatment alone, it fails in many cases. A demand for an orthodox short-time treatment led some members of the medical profession to try the effect of certain drugs as an antidote to alcohol and other drug "craves," and to the adoption by the profession of a treatment by the hypodermic injection of atropine and strychnine in combination.

Good results were and are claimed for this treatment, and a number of well-known medical men formed themselves into a committee and founded the Norwood Sanatorium, with the object of thoroughly testing its value. This committee derives no pecuniary benefit from the work there carried on, and devotes any profits that accrue to the further scientific study of inebriety and its treatment.

Specific drug treatments, one and all, seem to us to treat the physical element of inebriety, to the greater or less exclusion of the psychic element, and therein we discover their chief defects.

Some of the scientific drug treatments would seem

to do what is claimed for them—namely, to obliterate more or less effectually and quickly the inordinate desire or need for alcohol, and to restore the physical well-being, and through that, to less extent, the mental health of the patient.

This abolition of crave and restoration to physical, and, to a less extent, mental health, is, however, in our opinion, attainable equally well by a short compulsory abstinence with tonic treatment, without resort to the use of any specific drugs, which are admittedly purely empirical in their action.

Like isolation treatment alone, drug treatment alone is successful in curing a percentage of cases of inebriety. Probably between 30 and 40 per cent. of cures may be said to result from the best forms of these two methods of treatment when they are carried out in well-conducted sanatoria, and a less percentage when drug treatments are carried out at home. The fact that isolation treatment and drug treatment, singly as well as in combination, at present have failed to cure many inebriates, has led to hypnotic suggestion being tried, in this country principally in those cases when these other two treatments, or at least one of them, has failed.

Yet in these apparently hopeless conditions there is proof obtainable of some 30 to 70 per cent. of successful results. Treatment purely by hypnotic suggestion recognizes the psychic element in inebriety, and is apt to treat that element almost exclusively; whereas the physical element, where it exists to any

considerable extent, must also be treated by physical means.

We propose now to lay down the essentials for the treatment of inebriety, and think that there will be no question as to their being essentials, and no question as to their including all that is necessary in any treatment.

1. The prevention, as far as possible, of all access to alcohol in any shape or form for so long as there remains any inordinate desire, need, or impulse, for and to, the use of alcohol; or any lack of control over such inordinate desire, need, or impulse.

2. To discover, with a view to removal, or at least mitigation, any predisposing or exciting cause for an inordinate desire, need, or impulse; or any predisposing cause of impaired self-control over such desire, need, or impulse.

3. The production or restoration of physical health, so far as they are capable of production and restoration.

4. The production or restoration of mental and psychical health, so far as these are capable of production or restoration.

5. In the event of an inability to produce or restore a satisfactory state of mental and psychical health, to endeavour to reduce the need or desire for alcohol sufficiently to enable it to come under the control of an incurably defective mental equipment, and, failing this, to isolate the inebriate from all access to alcohol indefinitely.

It will be obvious that while each of the three modes of treatments mentioned fulfils these essentials in part and in different parts, none of them *per se* are capable of fulfilling them all.

What we have called the isolation treatment fulfils the first essential thoroughly, the second only if the treatment is under skilled medical supervision, the third thoroughly, the fourth and fifth only partially at best.

Specific drug treatments fulfil the first essential only indifferently, unless carried out in a sanatorium; the second not at all, unless carried out by a medical man in a sanatorium, or by a medical man of experience in inebriety outside a sanatorium; the third essential, in that the treatment is the same for all patients, is fulfilled too well in some cases, and not sufficiently well in others; the fourth essential, unless the treatment is carried out in a sanatorium, or by a medical man experienced in inebriety *and* in psychotherapy, only very partially indeed.

Treatment by Psychotherapy fulfils the first essential only when it is possible or advisable to hypnotize the patient deeply, and therefore indifferently, as it is not always either possible or expedient to produce deep hypnosis. It fulfils the second essential thoroughly if it is conducted by a medical man experienced in the treatment of inebriety. It fulfils the third but impartially, unless drugs be used in addition. It fulfils the fourth and fifth essentials as thoroughly as it is probably possible to fulfil them,

more particularly if the psychotherapist has experience of inebriety and the mental conditions on which it depends; and if the treatment is conducted in the absence of a conflicting environment.

When we look at the treatment of inebriety in this way, it would seem evident that it is best carried out *in a special institution by a combination of drug treatment and psychotherapy.*

We will now consider what are the drawbacks of sanatorium or isolation treatment, of drug treatments, and of treatment by psychotherapy.

Objections to Sanatorium Treatment.—The first of these would seem to be that it entails a patient's leaving his home for some considerable period. Anyone, however, who has had any experience of inebriety, knows that in the vast majority of cases the home environment is the worst possible environment, and that an inebriate can be induced to make an effort, when away from such environment, that is in many instances impossible for him in the midst of it. Secondly, in the majority of cases, it is best for the patient, his business (if he is engaged in any), and his friends, that he should absent himself for a time from it and them. Thirdly, that *time is an essential in the treatment of the inebriate constitution;* and that, therefore, a short term of treatment away from home is of less value than a longer term, provided the treatment is right treatment. The next objection raised against institution treatment, if it were a real one, would be not only an objection, but

a possible danger. It is that the association of one inebriate patient with another tends to aggravate rather than lessen his mental abnormality.

Now, our own experience does not bear out this objection in any way, nor have we ever had such an opinion expressed by anyone possessing any personal experience of institution work. That such an objection has some foundation, we admit, although, if it is real, it is not the fault of the institution system, but of the administration of that system. Such administration is not easy, and harm may therefore occasionally arise. In our opinion, however, more harm is done by unskilled home treatment by relatives, in the absence of the doctor, than can be done by the association of patient with patient in a well-conducted institution.

The connection of one such patient with another, though occasionally harmful, is in the vast majority of cases, on the other hand, capable of doing much good. Many patients receive from their fellow-patients a valuable education and insight into their own condition, which would be looked for in vain outside an institution. The inebriate is in most cases an egotist, and institution life is very antagonistic to egotism.

There is another objection raised to institution treatment—namely, that it engenders idleness. At first sight this is a plausible objection; but here, again, it is more apparent than real. The idler will idle anywhere, and not more so in an institution than outside. No inebriate institution should encourage idleness. It has been found so far impossible in any

institution where patients pay even moderate fees to compel them to work. But employment of time, both useful and congenial, can generally be found for those patients who can in any way be induced to apply themselves to it, and every inducement should be used to this end. Work in such institutions could probably with advantage be made compulsory under amended Inebriates Acts.

The last objection that we think it necessary to call attention to is, that nothing is done in the way of a definite treatment. We are asked: Do you give a course of drugs? and so on. To the outsider it always seems necessary that some special form of treatment should be employed, no matter what it is, whether it is indicated or not, or has any real reference to the condition. A sanatorium that advertised a treatment consisting of hot baths of sea-water night and morning, and doses of hot sea-water to be taken three or four times a day, or a sugar-plum every hour throughout the day, would for a time probably have a great vogue.

Such an objection is, then, of no great importance; indeed, the fact that no out-of-the-way routine course of treatment is given is in our opinion a proof of understanding on the part of those in charge of the conditions they are attempting to treat. While objecting on scientific grounds to routine, as opposed to individual treatment, whether by drugs or any other agents, we do not and must not overlook the value of interesting each individual patient in his treatment, no matter whether it be simple or com-

plicated. Whatever is done, *he* must feel that something is being done for him. This is recognized by the nostrum vendor. He gives minute directions for the taking of a remedy for this and that disease, that, while in itself of no therapeutic value, thereby gives it, in the mind of the patient and his friends, an altogether ideational value. That is, nevertheless, not without its use, and is itself actually responsible for a cure in an astonishing number of cases where the disease is a functional one, and for marked benefit in not a few where the disease is actually organic.

Objections to Drug Treatment.—When considering these, it must first of all be understood that we refer to such drug treatment which is in itself supposed to be responsible for a cure, not to drugs used in treatment of various symptoms, not as "cures," but as adjuvants to a cure.

The first objection is that it is, in our opinion, unscientific to apply a course of a specific drug or combination of drugs to all and sundry without regard for individual needs and symptoms. In the opinion of many, such a treatment is held to be not altogether free from danger when the drugs used are such powerful ones as atropine, strychnine, and suchlike. Where they are innocuous, and given in the absurd doses in which they occur in some of the so-called drink-cures, this objection does not of course apply. A course of strychnine, given at haphazard to patients as a remedy for inebriety, has been condemned by Dr. Norman Kerr* and others. The next

* "Inebriety and Narcomania," p. 376.

objection is that raised to courses of hypodermic injections of drugs, by which, it has been alleged, alcoholic patients have become familiarized with the use of the hypodermic needle, and acquired other habits of inebriety in consequence.*

Referring to an opinion expressed by Dr. Hogg, of Dalrymple House, on this point,† Dr. J. Q. Donald, of Dairsie House, Cupar, says: "I thoroughly confirm his opinion, and can unfortunately corroborate it by examples."

While seeing the possibility of such a danger, and recognizing that one cannot be too careful in the avoidance of any treatment that may result in the substitution of one habit for another, we must frankly state that we have at present not seen any such occurrence as a result of the treatment of alcoholism by hypodermic injections of atropine and strychnine.

Dr. Harry Campbell, in defence of this treatment, says: "Strychnine and atropine are not the kind of drugs for which a habit is likely to be formed. So far there is no evidence whatever that a habit for them has ever been acquired as the result of the treatment." ‡

Another objection to a course of drug treatment *per se*, is that a short course of any treatment cannot efficiently deal with the mental aspect of the inebriate

* Twenty-second Annual Report of Dalrymple House, by Dr. Hogg.

† *British Journal of Inebriety*, January, 1907, p. 157.

‡ *British Journal of Inebriety*, January, 1907.

condition. This is an objection we cannot see any way of combating, as a month, or at most six weeks, on end of drug treatment is about as much, and probably more, than is good for most people. The best form of drug treatment, as carried on at the Norwood Sanatorium, may be reasonably expected to do what Dr. Hare, the medical superintendent of that institution, claims for it—viz., "to 'give them'" (the patients) "'a good start' on the road to permanent total abstinence in the strict sense of the term."*

Another objection to the drug treatments of inebriety is their empiricism. If, however, the empiric action of the drugs was invariably successful in the cure of the condition, there would be no need to quarrel about the why and wherefore of their action. It is said, not without reason, that indiscriminate dosing of a patient for some weeks with such drugs as form the basis of the best-known drug treatments, cannot be done with impunity in all cases.† Personally, we have noticed, and our attention has also been drawn to it by others, that quite a number of patients, who have been through one or other of the drug treatments, are quite differently affected by alcohol after such treatment to the way in which they were affected by it previously. One such effect is, that whereas before treatment he took his liquor quietly, afterwards he always became excited and out of control when under the influence of alcohol, even in small

* Dr. Hare, *British Journal of Inebriety*, January, 1908.

† Dr. Hogg, *British Journal of Inebriety*, January, 1908.

doses. Another result would seem to be a diminution of his tolerance to alcohol, which tolerance he is never again able to acquire.

Whether this last is an objection to the use of "specific drug treatments" may be considered by some to be a moot point. These are, we think, the main objections to treating inebriety by a course of drug treatment, and nothing more, over a period of from four to six weeks. They would seem to be objections whose validity is increased, when, as we think, it is possible to do all that those using such treatment claim for it (always excepting those who claim impossible results in an enormous and ridiculous percentage of the cases cured) by means against which the objections already noted cannot be urged. Be this as it may, any treatment which can only give a patient a good start on the road to permanent cure, while being a step in the right direction, *and sufficient in some cases to result in a permanent cure*, is not, in our opinion, good enough.

Objections to Treatment of Inebriety by Hypnotic Suggestion.—"The question whether or not hypnotic suggestion is dangerous, depends mainly upon the evidence which can be adduced in favour of hypnotic automatism. Evidence would seem to unquestionably show that automatism cannot be regarded as the essential characteristic of the hypnotic state, nor is hypnosis essential to successful psychotherapeutic suggestion. Personally I have never seen a single hypnotic somnambule who did not both possess and exercise

the power of resisting suggestions contrary to his moral sense."*†

Dr. Sainsbury‡ and Dr. Oscar Jennings§ (who quotes from the writings of the former) both base their objections to the use of hypnotic suggestion on the supposition that a hypnotized person is an automaton in the hands of the operator. Personally, we are able to testify, with Dr. Bramwell, that no matter what degree of hypnosis has been induced, all our patients have always shown themselves to possess, and only too ready to exercise, a resistance to any suggestions not only contrary to their moral sense, *but also contrary to their express wishes.* We are satisfied that experience of treatment by hypnotic suggestion will soon convince anyone that automatism is apparent rather than real, and that active resistance to any particular suggestion will render that suggestion completely inoperative.

The only objections we have to urge against the hypnotic suggestion treatment of inebriety, as at present practised, are—first, that it is not sufficient to get satisfactory results and stop there. Inebriety is a chronic disease, and any treatment used against

* "Hypnotism," by Dr. Milne Bramwell, p. 425. De la More Press.

† This statement applies also to the lighter forms of hypnosis. "Hypnotism," p. 425.

‡ "Drugs and the Drug Habit," by Dr. Harrington Sainsbury, p. 291. Methuen.

§ "The Morphia Habit," by Dr. Oscar Jennings, chap. vii. Baillière, Tindall and Cox.

it will not only need to be thoroughly used, but in most cases to be repeated at intervals, if a permanent cure is to be maintained. This continuance is a difficulty at present, owing to the comparatively few medical men who have studied the treatment; and it constitutes an objection to the treatment—an objection, however, which every year, now that the profession is at last becoming alive to the value of psychotherapy, will become less forcible.

Another objection, which while present can be easily guarded against, is, that in many cases so rapid are the good results of treatment that one is apt to expect too much from its application, and to neglect the treatment of physical symptoms by means other than suggestion. These symptoms, if so neglected, may go far ultimately towards undoing the results obtained by psychotherapy.

We have now briefly considered how the methods of treatment in vogue at the present time fulfil, or fail to fulfil, what we believe to be the essential conditions in dealing with alcohol inebriety. We have also briefly touched upon the main objections which have been urged against such treatments.

We now propose to describe what we consider to be the best line of treatment at our disposal, having regard to our present knowledge of alcohol inebriety, its causation, and effects.

In this place we shall not attempt to deal with the treatment of inebriety as met with in reformatories, partly because, as we have shown, a very large per-

centage of the inmates of such institutions are beyond curative treatment at present, and they will remain so until legislation makes the class of cases admitted to such institutions less hopeless to deal with, and partly because the treatment described here, while being applicable to the curable section of reformatory inebriates, would, we think, necessitate additions to the present medical staff of such institutions, and consequently render the treatment more costly than it is at present, and therefore more than ever difficult of attainment.

CHAPTER XI

THE TREATMENT OF ALCOHOL INEBRIETY BY THE COMBINED METHOD

To enable us to reach the inebriate and give him that treatment which he requires, it is necessary in the interests of the patient himself, and equally in the interests of the nation, that legislation should be enacted to compel such inebriates whose constitution prevents them from appreciating their condition and the necessity for an alteration in it to submit themselves to treatment. Till such legislation is forthcoming (and there is now every hope that it will be so at an early date), to their own detriment, and, worse still, to the detriment of the nation, only a mere fraction of existing inebriates can be brought under treatment. It is no more the fault of the inebriate that he fails to see the necessity for, and refuses to submit himself to, treatment, than it would be the fault of a more mentally unsound person if he, as he in nine cases out of ten would, refused to voluntarily submit himself to asylum treatment. As things are at present, a mere fraction of those who should be under treatment for inebriety are reaping

its benefits, and these do not as a rule come under supervision till many years' inebriety have made their cure much less likely than would have been the case had they come under treatment in the earlier stages of their condition. If other diseases came under treatment at such a late stage, the hope of recovery would be poor indeed.

The treatment of pathological inebriety must aim first of all at a cure as complete as possible of the inebriety and of those psychoneurotic abnormalities which are the cause of it. Where a cure is impossible, it must aim at preventing, by constant supervision, more or less stringent according to the needs of individual cases, the inevitable results of irremovable psychoneurotic abnormalities, of which the inebriety is probably the most striking example.

If we take a complete cure of pathological inebriety to mean such a cure as will enable a patient after its completion to drink alcoholic drinks in moderation, seldom or never exceeding such moderation, and, in the event of accidental excess, being able to regain his sobriety at will, then we may say at once that, in our opinion, such a cure is impossible of attainment. A cure may, in a few rare instances, reach such perfection that the patient is once more (if he ever was) able to take alcohol constantly in moderation and remain sober. Such cures exist: we know, indeed, of a few which have persisted for some years; but they are extremely rare, and merely point this conclusion, that when the deviation from normal is

extremely slight in degree and of short standing, such a complete cure is possible. These cases are therefore only another plea for early and efficient treatment for all inebriates. In the experience of those best qualified to give an opinion, so extremely rare, however, is it to find an inebriate who is ever able to take alcohol without relapsing into inebriety, no matter how long he may have been a total abstainer, that it may be taken as an axiom that no inebriate can take alcohol without sooner or later relapsing into inebriety. The only form of inebriety in which the inebriate may be able to drink in moderation for months at a time without going to excess is true dipsomania. This being the case, we shall therefore take the cure of an inebriate to mean that he is able to remain sober because he is able to withstand all and sundry temptations of everyday life to take alcohol or other stimulant narcotic, and does so withstand them. When we consider the number and magnitude of such daily and hourly temptations, the ability to continually withstand them shows that an immense change has been effected by some means in the psychoneurotic equipment of the inebriate who has achieved this moral conquest.

To effect such a change is possible in a good proportion of inebriates, though the difficulty of following the after-career of our patients without the help of efficient legislation makes it impossible to give reliable statistics as to the percentage of such cures. To a considerable degree it is possible to effect such a

change in a good many more—that is to say, the relapses into inebriety are few and far between, and there is a strong effort constantly made against them. In many patients there is a slight degree of change, and in a few no change whatever. The cure of inebriety appears to be in exact proportion to the amount and removability of the psychopathic abnormality existing in each individual case.

The treatment of inebriety must be divided into two stages. The first stage of treatment is the suppression of alcohol or other narcotic drug and the removal of any urgent need or desire for it. The second stage is the building up or restoration of psychoneurotic integrity to such a degree as will enable the patient to *appreciate his condition* and the necessity for *total abstinence*, and as will enable him, when such necessity is appreciated, to *carry it out*.

Stage I.

This stage can, we think, without doubt, be best carried out in a well-conducted sanatorium. The treatment of this stage will vary according to whether we are treating periodic or chronic inebriety. In the past little or no difference was made, the routine treatment in both cases being to cut off the alcohol completely and at once, except possibly in the case of extremely debilitated patients.

We are of opinion, and in this we do not stand alone, that there is nothing to be gained by a brusque suppression in all cases without regard to the condition of

the patient, and by relying on the administration of sedative drugs other than alcohol to counteract the more or less constant, but varying degree, of nervous shock and reaction resulting from it.

It may, on the other hand, be admitted that there is a great deal to be said in favour of less brusque and more discriminating suppression.

Dr. Oscar Jennings* says of the gradual suppression of morphia, that it should be carried out "as quickly as possible, and as slowly as is necessary." We maintain that this dictum applies equally to alcohol withdrawal. Those who favour sudden and complete withdrawal tell us that the mental and physical distress accompanying such withdrawal is a deterrent to future relapse. We maintain that there is *no warrant whatever for such a statement*, and that while there is no evidence in its favour, there is ample evidence that fear, once experienced of the suffering entailed by sudden withdrawal, acts as a powerful deterrent to a patient's submitting himself in case of necessity to a similar experience, or as an inducement to postpone the evil moment as long as possible.

Dr. Francis Hare† on this point says: "If it be admitted for the sake of argument that the use of alcohol in inebriety is always unwise, there still remains the certainty that very large numbers of patients are effectually prevented from undergoing voluntary treatment by the terror of sudden withdrawal and its accom-

* "The Morphia Habit." Baillière, Tindall and Cox.

† The Third Annual Report of the Norwood Sanatorium.

panying real distress. This would be defeating one of the primary objects of the sanatorium—the treatment of patients in the earlier and more hopeful stages of the alcohol habit. For there is little doubt that if the results are to be improved upon in the future, it will be largely through the application of earlier treatment. This, in turn, will depend in no small degree on the knowledge that patients are not made to suffer needlessly."

We are entirely in accord with Dr. Hare, and, like him, have had our convictions forced upon us by clinical evidence and experience.

Where there is evidence of the establishment of great tolerance to alcohol, and consequently of great intolerance of withdrawal, it is wrong treatment, and serves no good purpose whatever to suddenly withdraw all alcohol.

Gradual withdrawal, or "tapering off," is our practice in those cases which come under the category of chronic inebriety or of periodic inebriety, with prolonged bouts of intoxication. We wish it to be clearly understood, however, that while "tapering" is often indicated, it should be as rapid as possible, compatible with absolute safety, and the avoidance of undue and unnecessary mental and physical distress.

We think that nothing will so greatly encourage patients to submit themselves to treatment, and persevere in their treatment, as the knowledge that they will not be called upon to undergo *unnecessary* and undue distress in the process.

It may be taken that when "tapering" is indicated all alcohol can be, and should be, withdrawn in from three to seven days without causing any unbearable discomfort, and without incurring any risk whatever; and we protest strongly against alcohol being allowed for any greater length of time except under the gravest conditions. The shorter period is usually amply sufficient.

"Tapering" should be done under the doctor's orders, and no deviation from those orders allowed under any pretext.

In such cases where there are no contra-indications, the alcohol can, and should be, withdrawn at once, in the interests of both doctor and patient.

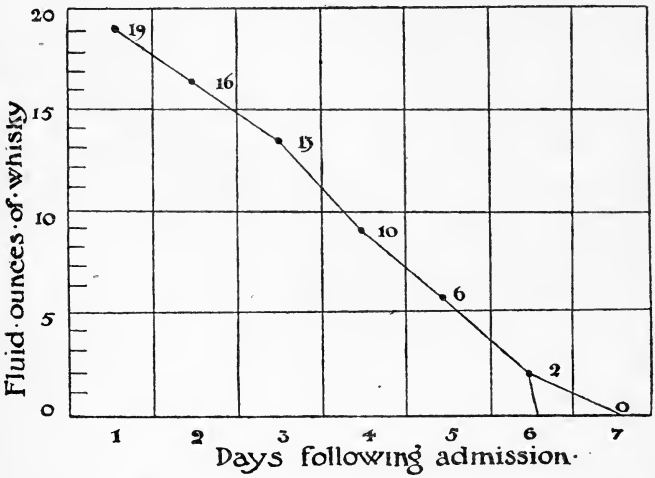
The following chart* (p. 103) shows the tapering of a patient, taking immediately previous to admission a bottle of whisky a day (twenty ounces).

It will be observed that in this chart there is a very slight curve, there must be no *sudden* fall in the amount of alcohol given, and this is especially important during the first two or three days. After the third or fourth day, where the amount of alcohol given has fallen to five ounces, further tapering is unnecessary, and if the administration of alcohol is carried on, it becomes a luxury and nothing more.

The reduction of alcohol is exactly opposite to the reduction of morphia. In suppressing morphia we can begin with a large reduction from the amount

* This chart is copied from one in the Fourth Report of the Norwood Sanatorium.

being taken by the patient on admission; but subsequent reduction has to be extremely slow, and the nearer the amount approaches extinction, the slower it will be found necessary to go. During the withdrawal of alcohol a patient should be given light fluid nourishment, and the alcohol, given medicinally, can often be conveniently given in the form of "egg flip," thus insuring a supply of easily digested



nourishing food at the same time. Frequently it will be found that the stomach refuses to tolerate the lightest food unless given in conjunction with alcohol. Withdrawal should be preceded by some efficient purgative, such as pil. calomel and colocynth, or calomel and hyoscyamus, followed on the succeeding morning by a large dose of sod. sulph. or some one or other of the aperient waters. This purgation should

be repeated as required each night and morning for the first two or three days.

The principal symptoms to be met with and treated during withdrawal are insomnia, restlessness, muscular tremor, and gastric disorder. Insomnia is an almost invariable symptom of withdrawal, and begins to be troublesome on the second or third night. It may be very temporary or may be very persistent. It may be merely the result of withdrawal, or may be one of the original causes of the inebriety.

In insomnia, due to alcohol withdrawal, there is a difficulty in getting to sleep and a difficulty in remaining asleep. While the alcohol is being taken in quantity there is usually no difficulty in getting to sleep, but the sleep is apt to be short, and to end with the action of the last dose of alcohol.

In dealing with the insomnia due to withdrawal, we have to get the patient to sleep, and give him sufficient sleep.

Probably the best hypnotics for this purpose are—a minute dose of apomorphine, insufficient to produce emesis, given after the patient is settled for the night, together with 7 to 15 grains of veronal, or 20 to 30 grains of trional, given an hour previously in hot milk. By the time the apomorphine has ceased to be effectual, the veronal or trional is ready to carry on the work, and insures the patient a good night.

Another very useful drug in these cases is paraldehyde, in doses of from 1½ to 2 drachms, at bedtime. Another drachm or drachm and a half should be held

in reserve, and given by the nurse if the patient wakes too soon. An advantage of this drug is its unpleasant odour and taste, which prevents most patients from taking it oftener than they are obliged.*

We are of opinion that hypnotic drugs should not be withheld during the first week, but that after that every effort should be made to dispense with them. We shall have occasion to refer to insomnia again when discussing the second stage of treatment.

The nervous restlessness and muscular tremor are best met with by doses of a mixture containing pot. brom. 40 grains, ammon. carb. 3 grains, tr. capsici 75 minims, inf. cinchonæ acidum up to 1 ounce, every 4 hours. This mixture, and one of rhubarb, soda, and gentian (and peppermint, which may be given with it if necessary), is usually all that is required to meet the gastric symptoms after the third or fourth day. There is no great difficulty in the treatment of this stage in chronic alcoholism, when the treatment is applied in a sanatorium, and not much more when carried out at home, provided the patient can be thoroughly safeguarded from all access to alcohol.

When, however, the periodic inebriate comes under treatment during a drinking bout, this case presents more difficulty. In the first place, unless he has been drinking heavily for some time, gradual withdrawal is not indicated, and during the first two or three days of treatment there will be need for the utmost watch-

* A paraldehyde habit, however, is by no means unknown.

fulness to prevent the patient getting alcohol by hook or by crook. This is not such a difficult matter in a sanatorium, but at home necessitates the attendance of one or often two nurses who understand the management of these cases.

The best treatment of which we know for the sobering up of a patient on a periodic drinking-bout is the administration of apomorphine. The patient should be given from $\frac{1}{20}$ to $\frac{1}{10}$ grain and its effect watched. The effect of such a dose on an unmanageable, riotous, or obstinate patient, is little short of miraculous. A few minutes after giving the injection there is sharp emesis lasting a very short time, and followed *at once* by a sleep of one, two, or three hours. On awaking there is usually a great change in the patient's demeanour, obstinate or maniacal behaviour being replaced by more or less docile obedience to instructions, and a great lessening or entire absence of the urgent crave for alcohol. If the patient wakes with a crave, and still unmanageable, the dose, or a smaller one of $\frac{1}{30}$ grain, may be repeated, but this will usually be found unnecessary. In such doses there is practically no risk in the use of apomorphine. It is, however, advisable that a patient should not be left until all emesis is entirely finished, as often he becomes sound asleep and helpless before this, and may, if left to himself, choke from being unable to properly clear his larynx, while subsequently vomiting. We have, however, never seen any such accident.

When the apomorphine has done its work, the patient is manageable, and the crave for alcohol reduced in urgency. The treatment for the next two or three days to a week is that of the chronic inebriate after gradual withdrawal. Sometimes the patient will need constant watching still to prevent access to alcohol, but usually after three or four days he will make no attempt, under tactful management, to go out of his way to get drink, and will appreciate what is being done for him. The first stage of treatment is then over, and we proceed to the second and more important stage, on the success of which depends the permanent cure or benefit of the patient.

CHAPTER XII

THE TREATMENT OF ALCOHOL INEBRIETY BY THE COMBINED METHOD—*Continued*

Stage II.

This, as we have already said, consists in an attempt to produce or restore such a state of physical and mental health as will enable the patient to permanently remain a total abstainer from alcoholic drink.

The restoration of physical health, where the mischief is the result of alcoholic excess, is, generally speaking, easy of accomplishment, and takes place with great rapidity when once the cause (alcoholic poisoning) is withdrawn completely. The exceptions are only those cases in which long-continued and constant drinking of toxic doses has produced or aggravated organic changes in the organs of the body and in the brain, such as peripheral neuritis, chronic nephritis and hepatitis, thickening of the membranes of the brain, and other more obscure damage. Even in such cases, however, mere permanent removal of the toxic alcohol quickly produces some alteration for the better, and appropriate remedies, in addition, give very satisfactory results.

There are, however, other forms of functional and organic physical disease which are causes, not results, of the inebriety, and which, if the inebriety is to be cured, must first be removed or at least remedied.

The principal of these are the various tics and neuralgias, often purely functional, and due to some hysterical or neurasthenic condition, and in some few cases only due to organic mischief. Syphilis, phthisis, chronic dyspepsia, and cardiac disturbances are other causes of inebriety which we are called upon to remove or alleviate.

In women, in addition, we have the disturbances due to their sex, which are prolific causes of inebriety. Other conditions that may be regarded as partly mental and partly physical, and on which the inebriety may depend, are epilepsy, either idiopathic or arising from some traumatic cause, and the toxæmias arising from imperfect assimilation and excretion, and the mental results of disorders of the sexual apparatus in both sexes.

It is this intimate association of mental and physical disease in the causation of inebriety which makes a diagnosis of the cause so important, and renders a combined treatment so necessary. The treatment of these various physical disturbances, on which we find the inebriety to depend, when it does so depend, is to be found in any medical textbook, and is a part of everyday medical practice, and therefore need not be gone into here. Suffice it to say that whatever the condition and whatever the treatment adopted, alcohol

must be rigidly excluded from first to last, in any form or quantity.

In a few instances the mental or psychic disorder is very slight, and is recovered from almost, or in some cases, quite as rapidly as the physical results of his inebriety; in these cases the removal of the physical disorders and the stopping of alcohol, coupled with a definite assurance, based on results of previous experiment, that further alcoholic indulgence will inevitably result in a return to inebriety, is sufficient to enable the patient to see the necessity for total abstinence, and to act upon it then and thereafter.

In a very large number of cases, however, the psychic disturbance, inherent or acquired, as the main cause of the inebriety, is far more deeply seated and difficult of removal. In these cases it is not sufficient merely to restore physical health, though this should be the first step towards cure, and not sufficient, when this is accomplished, merely to advise, or insist upon the necessity of continuous total abstinence. These patients either fail entirely to appreciate the necessity for such continuous abstinence, or, if appreciating it, entirely or partially lack the self-control necessary to carry it out.

We cannot too strongly deprecate the mere physical treatment of inebriety by this or that course of drug treatment only, or too strongly insist upon the necessity of looking for and treating scientifically the psychic abnormalities of the patient's condition.

The rapid recovery from physical disorders which

are apparent, and the equal if less rapid recovery from mental disorders which are also apparent, and which, when so obviously apparent, are more often the result than the cause of the inebriety, has led us in the past, and still leads, to the overlooking and neglect of the invariably present but much more obscure psychic or mental disturbances which are the real causes of the inebriety.

The patient is, as one would expect, in most cases entirely ignorant of these mental or psychic peculiarities and defects, and his doctor has hitherto too often failed to regard them as other than mere idiosyncrasies and eccentricities in no way connected with the inebriety, and for which he can offer no treatment.

The mental deviations from the normal which result in inebriety may and do range from actual insanity to mere eccentricity, but are always present in varying degree in every case of continued or periodic inebriety.

Some of the commoner deviations from the normal, which have received little attention in the past, but which are admitted by all who have studied the subject to be of great importance in the causation of inebriety are—Impairment of normal affective feelings; perverted or exaggerated emotional states; ideas (amounting not infrequently to fixed delusions) of ill treatment, of being misunderstood (often no delusion), of injustice and persecution; want of accuracy, in no way connected with want of memory, and which is nevertheless not malicious lying; want of common observation, lack

of power of attention, concentration and application; want of response to conscience, and in many cases a total want of conscience; want of any sense of responsibility; an inability to forecaste the inevitable result of a given action, and the lack of power to profit by past experience in similar situations.

In addition, we find a lack or excess of self-consciousness; an indifference or exaggerated attachment to personal appearance, leading to either extreme carelessness or extreme foppishness; a want of thought for others, a lack of desire to please; or a constant clamouring for attention from others, that the inebriate seldom thinks of reciprocating. There is also in many cases a certain excitability, plausibility, and show of industry, masking a want of spontaneous effort and general slackness. Some one or other of these deviations from the normal is to be found if looked for, and while they persist in an exaggerated form, prevent these patients from maintaining normal relationship with their families and friends, interfere with their business affairs, and generally keep up irritative conditions, which result in excessive resort to alcohol. It is to the recognition and treatment of these psychic and mental disturbances that we must look for the cure of the inebriate. Those of us who see the inebriate in bodily health and free for the time from alcohol, know that these conditions are then in existence, and that they have again and again, after his physical condition has been restored, led to relapse. Therefore, it must be granted that something more

than mere drug treatments and isolation from alcohol, is necessary to the attainment of a permanent cure.

Without fear of contradiction from those whose opinion is of value on account of their undoubted knowledge of the inebriate state, and their experience of the inebriate whether drunk or sober, we say that for the thorough treatment of inebriety, the special sanatorium stands alone.

"The value of the sanatorium as a psychotherapeutic agent," says Dr. Harrington Sainsbury, "is great; the unaccustomed surroundings, the routine and regulated life, the officialism and, above all, the personality of the superintendent in which everything centres—all these elements sum themselves up and yield a therapeutic momentum which we shall look for in vain outside the institution. Properly conducted, it is very commanding. From these considerations it will be apparent how much the sanatorium is a one-man establishment, as, indeed, are all great institutions—governmental, educational, etc.—and how in the selection of a sanatorium its headship should be first regarded. System impersonal will do much, administration personally will do more; it is precisely here that we want the *ipse dixit* of the ruler, and require that this should have unquestioned authority."*

Whether or not, then, the first stage of the treatment of inebriety is carried out at home or in a special sanatorium, there is no doubt that the second stage is

* "Drugs and the Drug Habit," by Dr. Harrington Sainsbury.

best carried out in such an institution where those in charge have a thorough knowledge, and, what is equally important, a profound interest in their work, apart altogether from its commercial standpoint. We venture to think that there is no abnormal condition to which man is subject, where the treatment calls for such untiring hope, energy, patience, sympathy, firmness and tact combined, as is the case in the treatment of inebriety, and unless these qualities are ingrained in the superintendent of an inebriate sanatorium, his work will inevitably suffer. It is work that he must do himself, and cannot constantly delegate to those under him.

We will suppose that the first stage of treatment has been duly carried out at home, or in an institution, and that the patient is now commencing the second stage in the best possible environment of a well-situated and well-conducted sanatorium. We see nothing advantageous in the administration of a routine course of drug treatment to all and sundry, irrespective of their individual physical and mental symptoms. Speaking generally, we think that those drugs should be used which have been proved to alleviate or cure such organic or functional physical disorders as are obvious to the physician on the examination of the patient. We shall have occasion to refer again to the routine courses of drugs that are still being used in the treatment of inebriety. Of the utmost importance in the treatment at this stage are occupation and exercise; the life should be an outdoor one as far as

possible, at all events a certain amount of outdoor exercise should be taken daily. Such exercise should be as congenial as possible to the patient, and preferably be both mental and physical. Golf, rackets, lawn tennis, croquet, bowls, are all excellent forms of exercise for such patients as we are now dealing with. If one particular exercise is unsuitable, another is thoroughly so, all providing interest as well as exercise, and insuring (especially golf) long periods being spent in the open air. Hobbies of all sorts suitable to the patient's particular fancies should be encouraged, and the facilities for them should be provided in a good sanatorium. Indoor amusements and occupations should also be provided, a well-stocked library being a *sina qua non* in such an institution. A certain amount of work, preferably physical, should form part of the treatment; many patients will do such work if it is provided for them; many will do no work, or anything that suggests work. We are of opinion that enforced work is of comparatively little value to the patient. Exercise, whether mental or physical, is of little real value unless it is done with a will and with intelligence; whereas forced work, while of some little value to the employer, is of even less value to the worker.

This is wonderfully exemplified in the use of dumb-bell exercises. Many people have used such in a listless routine manner for months, or even years, without any, or with extremely little, result to their physical development. Sandow showed that this was so, and by the simple invention of his *grip* dumb-bell, at once

insured the mind of the patient being fixed on his work; the moment his mind wandered his grip relaxed, and he ceased to carry out his planned exercise. Work with *grip* dumb-bells at once gave results that were previously wanting in the majority of those who had mechanically used the ordinary dumb-bell.

The inebriate is essentially a casual person; he seldom concentrates his mind on anything for any length of time, and the power of concentration needs cultivating.

How much can be done in getting patients to exercise their minds and bodies to the best advantage will depend, first on the facilities offered, and secondly (and all-important) on the way such work, occupations, and amusements are placed before him, and on how much or how little interest the physician takes in such work and occupations, and the doing of them. He should have an inherent or acquired interest in them, and, if possible, should be capable of playing no mean part at more than one form of work and sport.

During the time that the body is receiving all the care that can be bestowed upon it, the mental and psychic health must be equally cared for. Outdoor and indoor work and occupations will all act in this direction if intelligently carried out, but are not enough in themselves. *Psychic* treatment to be of value must be even more individual than physical treatment, individuals varying far more in psychic equipment than in physical equipment. The essential

in the treatment of the psychic defects of the inebriate is the power of the physician first of all to diagnose the defects and disorders present, and his powers to deal with such when diagnosed. Usually the patient is totally oblivious of them, and often would not credit their presence or recognize their existence if pointed out to him, and if we want to remove them, we have in many cases to do so without drawing his attention to them at all. Some patients can be coaxed out of bad traits of character, some can be shamed out of them, others chaffed out of them; few can be got out of them by coercive means. What measures of treatment are likely to prove most valuable in each individual case are either adopted intuitively by the physician, or are learned possibly partly by intuition and partly by long experience.

It is impossible to lay down any hard-and-fast lines for the treatment of the many and varying psychic peculiarities and defects, of which inebriety is so often a symptom; experience and close observation can alone teach the best method of dealing with each individual case.

Discipline is of great importance, but the utmost care is necessary in administering it. We are not dealing with utterly insane persons, who are incapable of appreciating the reason of our actions, and we cannot use the same arbitrary methods as are employed in asylums. We must have a sound reason for any disciplinary measure we adopt, and we should, as far as possible, induce our patient to see the reason and

justice and object of any such measure that we feel it necessary to put into force for his benefit.

There must be a complete confidence established between physician and patient, and, if possible, a liking. The physician *must* have a reputation for justice and fair dealing with his patients, and should inspire them with respect for his virile qualities. If such are wanting between patient and doctor, little benefit is likely to result from their connection; and it is better in such case to hand a patient over to someone else, who may be able to get the respect, confidence, and liking that has been denied to oneself.

Given such confidence, etc., however, between patient and doctor, something in addition may be done by precept, example, suggestion, and appeal.

We are becoming more and more convinced that the more intimate the relationship that can be established between doctor and patient, the greater will be the success of any treatment, and that the desired intimacy is best promoted by a regular, systematic, individual psychic treatment, by means of suggestion either in the hypnotic or waking state. Apart altogether from the value of the actual séance, there is a great value in the intimate association of doctor and patient which such séances necessarily bring about.

The majority of persons are suggestible to a greater or less degree, by which we mean they are capable of becoming impressed by repeated suggestions, conveyed to them verbally or otherwise. Often, indeed, it is this very suggestibility that has been in a great

measure responsible for the inebriety we are called upon to treat.

The physician should be able to take advantage of such suggestibility by replacing erroneous and faulty auto-suggestions by therapeutic hetero-suggestions.

To some extent the ordinary life and treatment in a sanatorium act as therapeutic suggestions, but they are often better reinforced by others of a more emphatic character. In a good many cases the inebriate has been treated in his home by appeal *ad nauseam*, and such appeals and suggestions have failed, not because these measures are useless—very far from it—but because the appeals and suggestions have been wrongly applied. In some cases the dosage has been wrong, in others the time of application. In others, again, the method in which the suggestion or appeal is applied is unfortunate; or, to carry out the medical simile, the vehicle in which the remedy is exhibited is an unsuitable one. The dosage, the time of administration, and the vehicle in which the remedy of suggestion is exhibited to a patient's *mind* must be chosen with as much knowledge, experience, and care as is given to the dosage of a drug, time of administration, and the vehicle in which it is exhibited when dealing with a patient's body. Suggestions, appeals, and even insistent commands, which have been given to patients and rejected with scorn and derision, or received without any apparent response, will, if administered in other forms by other persons at more suitable times and in more suitable

surroundings, often be accepted without any objection, and after a time be more and more acted upon, to the final exclusion and overthrow of those numberless auto-suggestions that have long held sway, and caused the continuance of the trouble we are endeavouring to overcome.

It by no means follows, however, because a patient is highly suggestible, that therefore he is the more easily cured. On the contrary, though we may easily control, and apparently cure, such a person of his inebriety so long as he is in surroundings and under treatment that suggest total abstinence, when such an extremely suggestible person once more goes out into the world the old suggestions have as much power over him in a very short time as those therapeutic ones formerly administered during his treatment; therefore, a permanent cure is less to be expected in such a person than in one who is less suggestible.

We have had such patients, who seem to have been rendered proof against any further addiction to alcohol. Under suggestion they had cultivated a loathing for alcohol in all forms, and even an inability to taste it without the production of emetic effects. Yet before long these persons, from continual association with an environment which suggested continually that alcohol was not the loathsome thing they had learnt to regard it, have found this fresh and ever-present suggestion strong enough to oust the one presented to them, and accepted by them

when under treatment, and have gradually slipped back into a further use of alcohol, leading inevitably, sooner or later, to a further abuse of it.

Sometimes the psychic treatment of an inebriate is better administered under so-called "hypnotic influence"; sometimes it is better administered in the waking state, without any attempt at hypnosis. In a considerable number of cases hypnosis is unattainable, and yet we need not despair of results from properly applied suggestion. Where, however, we deem the production of hypnosis of value, we find that we get better results when the degree of hypnosis is the deepest that can be induced. We consider that where the patient is full of auto-suggestions continuously cropping up and antagonizing, consciously or unconsciously, all suggestions given and received against his abnormal condition, that deep hypnosis lessens the power of these auto-suggestions, both during and immediately after each dose of psychic treatment, and enables our suggestions, given during treatment, to hold their own and produce the desired effect quicker and with more certainty. If during and after a séance of suggestion treatment a patient is unable to remember clearly the points of those suggestions given to him, and so is unable to criticize, and, consciously or unconsciously, oppose them in whole or in part, those suggestions will without doubt have better results lacking such conscious or unconscious criticism. When it becomes apparent that the erroneous auto-suggestions previously conceived have been

weakened or overthrown in favour of new and healthy ones, then the need for further hypnosis is gone; and we should fasten those new and healthy ideas in the patient's mind by reason and argument, which would have been useless or of slow result before the preliminary preparation by hypnotic work had been done.

Both the hypnotic and hypnoidal* states, and the use that can be made of them to uncover and bring to consciousness mental complexes that have been repressed and long forgotten by the patient, and which have resulted in the development of certain psychoneurotic symptoms, of which inebriety is one, has proved of value in the treatment of inebriety; and will in our opinion, when more extensively understood and used, be of more value still. It would seem probable, moreover, that in the near future, when better understood and when their technique has been more simplified, that what has been achieved in this direction by making use of the hypnotic and hypnoidal states, will be achieved to a greater extent by means of the psycho-analytical methods of Freud,† methods we have not yet had sufficient experience to mention further at present.

Time is an essential in the proper treatment of inebriety. One can safely say that the longer the period during which the inebriety has been apparent, the longer will be the time necessary to overcome it,

* See works by Boris Sidis.

† "Psycho-analysis," by Ernest Jones. Baillière, Tindall and Cox.

and the greater will be the tendency to relapse. The degree of inebriety is of no importance compared with the length of time it has been going on. There should be no fixed time laid down for the treatment. The time necessary to cure an inebriate will vary from a few weeks to many months, and in some cases *continuous care and treatment* is necessary merely to preserve *life* and to enable the individual to live a comparatively normal healthy existence. We need only allude to advertisements appearing in the daily papers and magazines, claiming to cure inebriety during a week-end without the knowledge of the patient, to exhibit the extraordinary gullibility of the public. We have no doubt that it is possible to remove an urgent need or crave for drink, and, indeed, to make the taking of alcohol repugnant to the drunkard during a week-end; but to do this for the true inebriate is not to cure him, but merely to take the first and most preliminary and easy step towards his cure.

There is no royal road to the cure of inebriety. It is impossible to fix a time for its completion, and there is no specific drug or drugs that can be put forward as a cure. We have tried to point out the bare outline which we think experience shows to be the right line to take in the treatment of alcohol and other forms of inebriety. Of the details of the treatment, varying as they will in their minutiæ with each individual case, it is impossible to dilate in the space now at our command.

If the opinions we have expressed should help

towards the better understanding of the inebriate state and of the inebriate, and lead to more active measures being employed to give him, and to induce him to take, what we believe to be the proper treatment for his condition, we shall be more than rewarded for our work.

We give details in another chapter of two excellent courses of drug treatment, which will, in any skilled hands, serve to give an excellent start in the cure of any sufferer from inebriety. We refer, firstly, to what is known as the "atropine and strychnine treatment," as practised at the Norwood Sanatorium; and, secondly, to the treatment practised and advocated by Dr. Alexander Lambert in the wards of the Belle Vue Hospital in New York.

CHAPTER XIII

INEBRIETY AND TEMPERANCE SOCIETIES

At the twelfth International Congress on Alcoholism held in London, Dr. R. W. Branthwaite, H.M. Inspector under the Inebriates Acts, made the following statement in a room containing hundreds of temperance workers and advocates: "Indeed, I doubt whether a dozen people in this room could stand five minutes examination on the powers we possess, let alone suggest the direction for their amendment." That such a statement could be truthfully made is surely a disgraceful stigma to attach to any such body of people. We would suggest that, in the interests of the community at large, and of inebriates in particular, every temperance society should have a committee, whose business it would be to study the laws relating to inebriety, to inebriates, their usefulness and their defects, and to report on them to the society, and that each society should place these reports upon their minutes. We suggest that these reports should be fully discussed, and suggestions for the bettering of these laws sent by these societies to the central authorities. We are sure that such suggestions, with

the reasons calling them forth, would be gratefully received by those administering and responsible for the administration of these laws. The help such reports would give to those engaged on the drafting and amendment of existing laws relating to inebriety, would be of immense value.

Another duty of temperance workers and advocates should be to acquire some knowledge of the treatment of inebriates in State reformatories and in better-class retreats and sanatoria. The amount of ignorance displayed on this point by ardent temperance workers is truly astonishing. We have been engaged in the study of inebriety for fifteen years, seven of which have been passed in a licensed institution, and during that time, although the institution lies on a much-frequented tourist route, never in those seven years has anyone, other than those directly interested in any of our patients, taken the trouble to call upon us with a view to learning what sort of institution it is, and what we do, or do not do, for our patients. We can assure those who are interested in the treatment of inebriates and the prevention of inebriety that those in charge of such institutions would welcome visits of inquiry, and that such visits would do much to lessen the appalling ignorance of what inebriety is, and replace repugnance to the inebriate by sympathy for his misfortune. Visits of this nature made by officials, etc., of temperance societies would, moreover, enable them, and, through them, the members of their societies, to advise the friends of inebriates, and

inebriates themselves, as to the proper course for them to pursue.

Officials of temperance societies should make it their business to enlighten the public as to the uselessness of many of the "drink cures" continually being foisted upon their notice, instead of unconsciously being, as is not uncommonly the case, useful agents to the vendors of these nostrums.

As a proof of how little is known of inebriate institutions, only some 15 per cent. of inquiries for admission into them result in the actual admission of a patient. Inebriate patients are well known to dread treatment, and such patients' friends are unable from personal knowledge to tell them that they have nothing to fear from treatment, and to explain to them the working of such institutions. The fact that nine out of ten of our patients on leaving have no regret at having come to us, and would not hesitate to come again, and to advise others to come under similar circumstances, shows that it is very largely ignorance that prevents many more availing themselves of the treatment offered to them.

Another great work awaits the energies of the temperance worker—namely, the formation of some temperance organization to help the inebriates of every class to remain teetotal after a period of treatment in sanatorium or reformatory, and to assist in getting him suitable employment or occupation. We who have to deal with him know how difficult is the life of an inebriate after leaving our care, with no

understanding person to lend him a hand. Friends he may or may not have; but he has not, in nine cases out of ten, and more especially in the lower classes, an adviser capable of giving and willing to give him that tactful help, which he can, without loss of self-respect, readily accept. There seems to us no reason why there should not be voluntary temperance workers, both male and female, in all our towns, whom we could ask to take a personal interest in any patient discharged from sanatorium or reformatory. We have no doubt there are numbers of men and women who would gladly undertake such work; the only thing wanting is organization. Something analogous to the to the Prisoners' Aid Society, is what is required; and it might easily be an offshoot of the many temperance societies, scattered all over the country. In order to do good work, however, these persons must learn something of the men and women with whom they would have to deal, and not, as is so often the case at present with the best of intentions, through ignorance, drive away those they set themselves to attract and assist. If any such workers exist, we do not know of them, and of their capacity for such work. Without some such organization many patients relapse, who would, with its help, never do so. The inebriate now too often goes back after treatment to the very environment that conduced to, if it did not actually cause, his inebriety. There is no escape from it. Among the lower classes, moreover, he finds it difficult or impossible to obtain employment, and to escape from what

his "unco-guid" neighbours (who in many cases are not fit to wipe his boots) call his disgraceful past. The blame for such relapse, under circumstances which could not be better calculated to produce it, instead of being recognized as due to these circumstances in large degree, is laid, either on the wretched individual himself, or put forward as a proof of the uselessness of the treatment he has undergone. It would be just as reasonable to expect a consumptive discharged from a sanatorium as cured to escape relapse, if he returns to a tubercle-laden atmosphere from which he cannot get away, as to expect such immunity in the case of many inebriates, discharged as cured from our inebriate institutions and reformatories, and launched, as is so often the case, into the worst possible environments which could be devised.

We read recently in the *Daily Mail* of an inebriate charged at Manchester for the *eighty-second time with drunkenness*. It was stated in court that the prisoner had recently been discharged from a three years' detention at the Lancashire Inebriate Reformatory at Langho. The magistrate remarked that he was another example of the uselessness of reformatory treatment, and sentenced this unfortunate wretch to a term of imprisonment. A more pitiful example of ignorance of inebriety and its treatment than this remark and sentence showed it would be difficult to find, and yet the same thing is seen every week in the police-courts of our large towns.

Laws have been passed to deal with these habitual

drunkards, and reformatories provided for them, as a result of many years' careful inquiry into inebriety and the best means of dealing with it, and as the result of three departmental Parliamentary Commissions, composed of those most qualified in this country to take evidence and report as to the most adequate methods at present at our disposal for legal treatment of the inebriate. And yet our magistrates, possessing no knowledge of inebriety, still persist in using their powers to treat the inebriate as a criminal. Eighty-two convictions for drunkenness, punished on each occasion by fines or imprisonment, should surely show the utter futility of such punishment. Yet because three years' reformatory treatment, followed by a return to wretched environments, had not produced a cure in an individual—whom at this stage of his inebriety probably nothing could cure, and for whom further constant care and supervision is surely therefore necessary in his interests and in the interests of the community at large—a further term of imprisonment with real criminals is ignorantly and cruelly, or thoughtlessly, meted out to this miserable degenerate. And, what is equally fatuous and harmful, the institution that for three years has cared for this person, and endeavoured to counteract some of the damage which former ignorant maltreatment, superimposed upon the original inebriety, has wrought on his mental equipment, is held up to public ridicule and obliquy. Such pronouncements as that quoted, made by men of such standing as our police-court

magistrates, and reported in our Press, are doing untold mischief to the advancement of the scientific treatment of the inebriate, and hindering the first, and still far from adequate, attempts being made by the Home Department to deal with inebriates on rational and scientific lines.

These attempts now being made are, as far as they go, eminently sound and in a right direction. But legislation must go much farther before we can hope to see the best use made of such institutions as that we have mentioned at Langho. It is to temperance societies, the Society for the Study of Inebriety, and to the medical profession, we must look to enlighten the public as to what the law is in regard to inebriety, and to bring before Parliament the need for still further amendment of the existing Acts. That such amendment is needed was abundantly proved in evidence before the Departmental Committee of Inquiry into these Acts in 1908. We are informed that the suggestions made by this Committee in their report have been incorporated in a Bill now before Parliament, but which has been delayed by reason of other more important work. Such suggestions are eminently sound and practical, and should go far to solve the legal side of the question as to how the inebriate should be dealt with.

Temperance workers should make themselves acquainted with the report of this Departmental Committee, and urge their Member of Parliament to support the suggestions of the Commission during the readings of this Bill.

CHAPTER XIV

DRUG TREATMENTS

THERE are two forms of drug treatment for alcoholism and drug abuse about which there is no attempt at secrecy, and which have proved to be of great value in certain cases. Those using them, however, do not claim them to be specific cures, but to "enable the patient to make a fresh start," which he was not in a position to do before the administration of the treatment. The permanency of the result will, as we have already pointed out, depend on the psychoneurotic integrity of the patient and the causation of the inebriety.

These two treatments are the atropine and strychnine treatment, as practised at the Norwood Sanatorium, Beckenham, and a treatment used by Dr. Alexander Lambert in the alcohol wards of the Belle Vue Hospital at New York. We here give these treatments in detail, because they are of undoubted value in suitable cases, and because they can be carried out at the patient's own home by his family doctor. If these treatments are, however, to be of any value they must be carried out strictly and systematically.

The Atropine and Strychnine Treatment.

The patient should be sobered up by some such treatment as has already been described to that end, and steps should be taken to prevent all access to alcohol, other than that allowed by the physician, during the first week or two of treatment.

The following tonic is then given from three to five times a day in water, the times of administration being fixed at the commencement and adhered to throughout:

Liq. cinchona conc. (Fletcher) ...	ℿxxiv.
Liq. gent. conc. (Fletcher)	ℿviii.
Sol. strychninæ nit. (gr. iv. ad ℥i.) ...	ℿi.
Sol. atropin. sulph. (gr. i. ad ℥i.) ...	ℿi.
Glycerini	℥i.
Aquæ	ad ℥ss.

After this mixture has been taken for a day or two, hypodermic injections of atropine and strychnine are also given.

The solutions employed for hypodermic injection are those used in the above mixture, and it is important that they should be freshly made, to avoid local irritation.

The injections are given thrice daily, immediately after meals (merely a convenient time, not interfering with the patient's daily work or occupation). The dose of strychnine solution commences at 2 minims, and is increased by 1 minim every second day up to the maximum; that of the atropine solution com-

mences at 1 minim, and is increased every second day by 1 minim up to the maximum. The following scheme represents the dosage in an average case :

First Week.—Gradual rise from 2 to 5 in the strychnine and from 1 to 4 in the atropine solution.

Second Week.—Rise from 5 to 7 strychnine and from 4 to 6 atropine solution.

Third Week.—The maximum doses maintained.

Fourth Week.—Reduction to 6 strychnine and 5 atropine solution.

Fifth Week.—Reduction to 5 and 4 respectively.

Sixth Week.—Reduction to 2 and 1 respectively.

The treatment is now abandoned. The result of it seems to be that patients, with some exceptions, lose all desire and need for alcohol after one or two weeks' treatment, and such desire and need remains in abeyance "till the patient has taken alcohol; when that has for any reason happened, however, all further security will have disappeared." It is at this stage, when drug treatments are ended, that in many cases, in our opinion, psychic treatment should commence, and be continued for as many weeks as the individual case shows to be necessary.

For patients of moderately sound psychoneurotic integrity the above course of treatment will in many cases prove sufficient.

Dr. Lambert's Treatment.

Dr. Lambert's treatment is more drastic, equally empirical, and, we think, more suitable for reformatory or hospital patients than for home treatment

or for treatment in better-class institutions. Dr. Lambert says of it: "This treatment is not an infallible cure for alcoholism; for there is no such thing, short of the grave. This treatment does obliterate the craving, and establishes a patient's self-confidence to go on without alcohol; it will do all that can be done for a man who honestly desires to be helped; *but as sure as that man lives, and just so long as he lives, he cannot touch alcohol in any form whatever without danger of a relapse.*" It is to enable him to thoroughly grasp this, and to fortify his powers of self-control, etc., that we think psychotherapeutic treatment such a necessary corollary to this and other drug treatments, if the results obtained are to be made permanent in the great majority of cases.

The specific drug treatment used by Dr. Lambert is the 15 per cent. tincture of belladonna, the fluid extract of xanthoxylum (prickly ash), and the fluid extract of hyoscyamus—thus:—

℞ Tr. belladonnæ ... ... ℥ii.
Fluid ext. xanthoxyli
Fluid ext. hyoscyami } ... ... āā ℥i.
M.; f. mistura.

While this specific is being given, the patient is given also, to insure thorough elimination, the most drastic cathartic medication, consisting of blue mass, the following pills, and castor-oil.

The pills used are—

℞ Ext. colocynth. co. ... ... gr. ⅓.
Hydrarg. chlorid. mitis ... ... gr. i.
Cambogiæ ... ... gr. ¼.
Res. jalapæ ... ... gr. ⅓.
M.; f. pil. 1.

℞ Ext. colocynth. co. ... ... gr. i.
Ext. hyoscyami ... ... gr. ss.
Ext. jalapæ ... ... gr. ss.
Ext. leptandræ ... ... gr. ¼.
Ext. res. podophylli ... ... gr. ¼.

Dr. Lambert lays stress on the necessity of using these pills in a freshly-made condition, and adds to the latter pill: Oleovesin of capsicum, $\frac{1}{10}$ grain; ginger, $\frac{1}{2}$ grain; castor-oil, $\frac{1}{25}$ minim.

For brevity in describing his treatment, he refers these pills respectively as CC and BB. He begins treatment with four CC pills, together with a 5-grain dose of freshly-made blue pill (pil. hydrarg.) and an enema of soapsuds. When these pills have begun to act, he administers his specific in doses of from 3 to 4 minims every hour until signs of belladonna intoxication are noticed. Every six hours he increases the dose of the specific by 2 minims, until from 8 to 10 minims are being taken every hour. If signs of belladonna intoxication are noticed, he stops the specific, and begins again, when they have subsided, in 8-minim doses. Some patients are very susceptible to belladonna, and in these cases it may be necessary to begin again in 4, 5, or 6 minim doses.

Fourteen hours after beginning the specific the patient is given the CC pills again. If the action resulting from the first dose was severe, only two may be necessary; if not, then four more of the pills are to be given, together with another 5 grains of blue mass. Dr. Lambert says: "Though I have never seen one of these patients over-physicked, we must treat them as

individuals, and not fall into the dangerous habit of routine treatment."

At this stage, and from the beginning, hypnotics are given when required, and patients who are in weak health or elderly are given 1 to 2 ounces of whisky in milk three or four times a day for the first twenty-four hours. During the second twenty-four hours probably only two such doses will be necessary, and after that none should or need be given.

After the second dose of cathartic has acted, if the patient has shown signs of a characteristic green, mucous stool, he is given an ounce of castor-oil, when this characteristic stool, composed of mucus and bile, will become more evident and the treatment may cease. If, however, the green stool has not shown itself, a third dose of CC or BB pills is given, and as soon as the green stool begins to appear the castor-oil is to be given.

After this treatment of vigorous elimination the patient will feel languid and relaxed, but will have no craving for alcohol. For the next two or three nights he may be assisted, if necessary, by hypnotics, such as trional, and should have a vigorous tonic without alcohol at frequent intervals. For at least a week the tonic should be continued, and he should live on a simple, abundant, and easily-digested diet.

The above is the method of treatment in the case of a patient who is not drinking heavily when the treatment is commenced. In the case of a patient coming under treatment while in the midst of a bout of intoxi-

cation, Dr. Lambert commences treatment with four CC pills, and gives the following hypnotic, repeating it with or without 1 or 2 drachms of paraldehyde in an hour, if necessary:

℞	Chloral. hydrati	gr. xv.
	Morphinæ	gr. $\frac{1}{8}$.
	Tr. hyoscyami	ʒss.
	Tr. zingiberis	♏x.
	Tr. capsici	♏v.
	Aquæ	ad ʒss.

M.; f. haust.

If this be not effectual in producing sleep in two hours, or even less, and the patient is of the furious, thrashing, motor type, Dr. Lambert gives the following hypodermic injection, which is almost invariably successful in quieting him:

℞	Strychninæ sulph.	gr. $\frac{1}{30}$.
	Hyoscyamin sulph.	gr. $\frac{1}{100}$.
	Apomorphinæ hydroch.	gr. $\frac{1}{20}$.
	Aquæ destillat.	♏ q.s.

Dr. Lambert allows such patients to have their sleep out naturally before commencing the specific.

He believes it is wise to give most alcoholics $\frac{1}{60}$ to $\frac{1}{30}$ grain of strychnine every four hours.

CHAPTER XV

SECRET REMEDIES

Some secret remedies for alcoholism, of which numbers are advertised in the daily and weekly papers and magazines, are of value in that *some* of them do actually produce a temporary distaste for alcoholic liquors, and are at the same time valuable nerve tonics. Others are apparently of not the smallest medicinal value, and owe any success they may achieve purely to the patient's suggestibility.

The removal of, or the immediate need for, alcoholic stimulant, together with consequent temporary freedom from alcohol intoxication, and the toning-up of the system by the best of these remedies, will enable some persons, who have gradually drifted into alcoholic excess, *to make a fresh start*, without losing time at business, and will enable those whose psychoneurotic integrity is sufficiently sound to remain total abstainers thereafter. Unfortunately, few of those who have become habitual alcoholics are of sufficiently sound psychoneurotic integrity to be able to hold their own after a course of one of these treatments, *without something more*. No treatment, secret or otherwise, can

convert a true inebriate into a moderate consumer of alcoholic liquors. When such a result has apparently been reached, we would beg leave to doubt the original diagnosis. In our opinion no drug treatment, secret or otherwise, can *per se* cure true inebriety when the inebriety, as in the majority of inebriates is the case, is dependent on psychoneurotic defects, inherent or acquired, of any magnitude, unless in those comparatively rare cases where the defect is either very slight or in the main the result rather than the cause of the inebriety.

Many cases of inebriety said to have been cured by this and that drug treatment are not in a true sense cases of inebriety as we have described it in previous chapters. A very large number of cases which are apparently cured relapse in a period of from a month to a year after completion of the course of treatment.

When such inebriates relapse, a second course of the same treatment is, generally speaking, of infinitely less value (often none at all) than the first course, showing, in our opinion, the very large amount of unconscious psychic treatment included in the first and partially successful course. To treat a batch of inebriates by a similar course of drugs in similar dosage merely because they all drink to excess periodically or continually, utterly irrespective of cause, is surely indefensible from a scientific point of view, and savours somewhat of firing a charge of shot into a covey of partridges in the hope of hitting some of them, and with little or no idea as to *which* or how

many birds will be affected by the charge. Many inebriates are treated by a course of specific drug treatment when from the nature of the case such drug treatment is doomed to prove a failure, the treatment being wholly unsuitable. Such treatment in these cases is merely waste of valuable time and of money. Moreover, it may be regarded almost as an axiom that every failure to cure inebriety (more especially when a cure has been practically promised, as is the case in the advertisements of many secret remedy cures) makes a subsequent cure more difficult of attainment, lowering as it does the hope of cure, and still further weakening an already weakened *morale*.

It is therefore of the first importance that at the outset the cause of the inebriety should be thoroughly investigated and the most appropriate form of remedy chosen. This can only be done by those with more than a superficial experience of inebriety, and is better done by a consultant, as having no axe to grind. Most of our leading alienists and neurologists are fit and proper persons, some better qualified than others, to examine a case of periodic or chronic inebriety and advise as to the proper treatment.

The lack of interest in, and knowledge of, the pathological inebriate shown by the medical profession as a whole is largely responsible for the exploiting of the public by the vendors of many so-called "cures." Something must be done for him. The family doctor shrugs his shoulders, and often says that nothing is of any value, and the anxious and distracted relatives fall

back on the promises of cure of which the advertisement columns of our daily and weekly papers and magazines are full. While some of these remedies, as already stated, are of medicinal value, others would seemingly have no medicinal value at all, and yet all their vendors can boast of cures, or apparent cures, resulting from their administration.

In such cases the cure, or apparent cure, is due to the therapeutic auto- and hetero-suggestions consciously and unconsciously given to, accepted by, and acted upon by, the patient with every dose of his remedy. The eulogistic advertisement; the literature and testimonials (not seldom vouched for by prominent, well-meaning, enthusiastic, but often misguided persons) which accompany or precede the treatment; the special and often elaborate directions for taking the remedy, and even its colour, consistency, and taste, all act as powerful suggestions of cure, and are alone sufficient, in not a few cases, to effect at least a temporary cure. It is an accepted fact that the inebriate is more than ordinarily suggestible—indeed, his inebriety and the difficulty of maintaining a cure of it rests in no small degree on this very fact. This being so, it is important that therapeutic suggestions, to be of real and lasting value, must be continuous, *and must be reinforced by reason and education.*

In the case of drug treatments, both the medicinal effect of the drugs and their suggestive value must of necessity tend to become less and less after the cessation of the course of treatment; in this, in our

opinion, lies one insurmountable objection to any drug treatment *per se*.

We have ourselves tried some of the better-known secret remedies, taking care to follow instructions implicitly, and see that the best possible conditions were observed throughout the entire treatment, yet in no case have we been fortunate enough to get a successful result from any one of them; moreover, quite 50 per cent. of the patients who have passed through our hands have previously tried one or more of these treatments.

APPENDIX

The following are the opinions of a few well-known practitioners of psychotherapeutics at home and abroad as to the value of psychotherapeutic methods in the treatment of inebriety.

Dr. Bérillon of Paris divides his psychic treatment of alcoholism into: (1) Preparation for treatment; (2) diagnosis of suggestibility; (3) production of hypnotic sleep; (4) suggestions during sleep; (5) association of mechanical actions with verbal suggestions; (6) re-education of the will.

Dr. Bérillon is very emphatic as to the extreme importance of imperative suggestion in these cases. "In a great many cases," he says, "it is necessary to reinforce verbal suggestions by various artifices, of which the most efficacious are psychomechanical actions having as their object the creation of *centres d'arrêt* psychical or actually physical which augment considerably the efficacy of mere verbal suggestion."

Professor Forel of Zurich, writing to us, says: "It matters little whether the hypnosis is really profound or less so. There are patients who appear to be hardly asleep, and who are more suggestible than others who sleep profoundly." He adds that any attempt to produce moderate drinking is an absurdity.

Dr. van Rhenterghem, of Amsterdam, writes us that, from his experience in the treatment of sixty cases of alcoholism by hypnotic suggestion, "it has proved a powerful aid against the enemy, but ought to be supported by re-education."

"My firm belief is," he says, "that a lasting cure may be best obtained in a special institution, when the medical superintendent has at his disposal the three factors, isolation, suggestion, and re-education combined."

Dr. Albert Moll, of Berlin, writes us: "In answer to your inquiry as to my general opinion about hypnotic treatment of alcoholism, I will answer in the following paragraphs:

"1. If hypnosis is essential to the treatment, I am of opinion that in the treatment of alcoholism profound hypnosis achieves the best results.

"2. One can influence favourably many cases without hypnosis, by suggestion, persuasion, and particularly by exciting fears of consequences.

"3. A suitable environment protecting the patient from temptation during and immediately after treatment is of the greatest importance.

"4. If this can be effectually carried out, quite a number of cases can be cured outside a special institution."

"5. Periodic dipsomania gives comparatively bad results."

The late Dr. Wetterstrand, of Stockholm, has reported at least 50 per cent. of cures in cases of alcohol inebriety treated by him by suggestion, and finds that this percentage can be very materially im-

proved when patients will take the trouble to return for occasional renewal of the treatment. Those of his cases that relapsed did so from three to six months after treatment.

Dr. van Erden, of Amsterdam, considers the results he has obtained by hypnotic suggestion in alcoholism "the most gratifying part of his hypnotic practice." He thinks that nearly all cases should return for treatment occasionally.

Professor Münsterberg,* of Harvard, U.S.A., says: "On the whole it may be said that psychotherapy can gain its easiest triumphs in the field of alcoholism and a wide propagation of psychotherapeutic methods and a thorough understanding of psychotherapy would be fully justified, even if no other field were accessible but that of the desire for alcoholic intemperance.

"A pronounced drinker," he says, "should never be transformed into a moderate one. The return to intemperance would result rapidly."

Dr. J. F. Woods, of London, published, in 1907, 208 cases of alcoholism treated by therapeutic suggestion. Of these 141 were cured, 35 improved, and in 32 there was no apparent benefit. This would point to a percentage of cures of nearly 70, but unfortunately I have no knowledge of how long the cures were followed up after treatment.

Dr. Milne Bramwell's† latest statistics are those given in his book published in 1906. Here he gives results of the treatment of 76 cases of "dipsomania

* "Psychotherapy," by Hugo Münsterberg, p. 278.

† "Hypnotism," De la More Press, pp. 221-231.

and chronic alcoholism" by hypnotic suggestion. Of these 76 cases, 28 remained cured *three years later;* 36 were improved, but relapsed at longer or shorter periods after treatment, *one eight years after;* 12 were failures, never ceasing to drink, and making no response whatever to treatment.

Dr. Bramwell is able to show about 37 per cent. of cures of three years' standing, while 50 per cent. of cases in which there was marked improvement would most probably have been cured if the treatment had been intermittently renewed during the first six or twelve months following the original treatment.

The actual failures are only 15 per cent., and some of these cases might reasonably have been expected to do better if the treatment could have been carried out under better surroundings and conditions than it was possible to place them in.

The majority of Dr. Bramwell's cases were bad ones, sent to him as a forlorn hope. We are personally acquainted with one case sent to him in such a way ourselves in 1907, after we had treated him by every known method other than hypnotic suggestion for eighteen months with no satisfactory result.

This patient was under Dr. Bramwell's care for two months, since when he has remained well. We may say that it was the result of hypnotic treatment in this apparently hopeless case that made us appreciate its immense value and turn our attention to the study of it.

Dr. Arie de Jong, of the Hague, speaking at a Hypnotic Congress in Paris in 1900, says: "My experience has proved to me that of the methods for

treating the abuse of alcohol there are only two of any value, hypnotic suggestion and asylum treatment, and that the first method offers the greatest advantages."

Dr. Maurice Wright, of Wimpole Street, writes us that he has used hypnotic suggestion with very good results in alcoholism, and aims at the deepest stage of hypnosis. He uses suggestions, he says, towards strengthening the will-power, and an alteration of the patient's mental attitude towards alcoholic drinks, and a re-education of his ideas regarding alcohol and its use, rather than in attempting to create a positive physical aversion to alcohol.

INDEX

Baillière, Tindall & Cox, 8, Henrietta Street, Covent Garden.

An Abridged List of Works

PUBLISHED BY

BAILLIÈRE, TINDALL & COX.

AARONS' Gynæcological Therapeutics.
Crown 8vo. Pp. xiv+178, with 46 Illustrations. Price **5s.** net.

AXENFELD'S Bacteriology of the Eye.
Translated by ANGUS MACNAB, F.R.C.S. Royal 8vo. Pp. xv+410, with 105 Illustrations, mostly coloured. Price **21s.** net.

BAYLY'S Clinical Pathology of Syphilis and Para-Syphilis. Fcap 8vo. Pp. xiv+194, with 3 Plates and 20 Illustrations in the text. Limp leather, gilt top. Price **5s.** net.

BEDDOES' Prescribers' Formulary and Index of Pharmacy. Size 3 × 4 inches. Pp. xii+132. Limp leather. Price **2s. 6d.** net.

BROWN'S Physiological Principles in Treatment.
Second Edition. Crown 8vo. Pp. viii+392. Price **5s.** net.

BRÜNING'S Direct Laryngoscopy, Bronchoscopy, and Œsophagoscopy. Translated and Edited by W. G. HOWARTH, F.R.C.S. Demy 8vo., xiv+370, with 114 Plates and other Illustrations. Price **15s.** net.

BUCHANAN'S Manual of Anatomy, Systematic and Practical, including Embryology. In 2 volumes. Price **12s. 6d.** each net. Or complete in 1 volume. Price **21s.** net. Demy 8vo. Pp. 1572, with 631 Illustrations, mostly original, and in several colours. (*University Series.*)

CABOT'S Physical Diagnosis.
Fifth Edition. Royal 8vo. Pp. xxii + 520, with 5 Plates and 268 Illustrations. Price **15s.** net.

CALKINS' Protozoology.
Royal 8vo. Pp. xii+350, with 4 Coloured Plates and 125 Illustrations. Price **15s.** net.

CASTELLANI & CHALMERS' Manual of Tropical Medicine. Second Edition. Demy 8vo. Pp. xxxii + 1748, with 15 Coloured Plates and 630 Illustrations, mostly original. Price **21s.** net. (*University Series.*)

CLARKE'S Errors of Accommodation, and Refraction of the Eye. Third Edition. Crown 8vo. Pp. x+230, with 88 Illustrations, plain and coloured. Price **5s.** net.

COOPER'S Pathological Inebriety: Its Causation and Treatment. Crown 8vo. Pp. xvi+152. Price **3s 6d.** net.

CROSS & COLE'S Modern Microscopy.
With chapters on special subjects by various writers. Fourth Edition, Revised and Enlarged. Demy 8vo. Pp. xviii+326, with 113 Plates and other Illustrations. Price **6s.** net.

DIEULAFOY'S Text-Book of Medicine.
Translated by V. E. COLLINS and J. A. LIEBMANN. In 2 volumes. Second Edition. Royal 8vo. Pp. xxiv+2156, with 9 Coloured Plates and 99 Illustrations. Price **25s.** net.

FRENCH'S Medical Laboratory Methods and Tests.
Third Edition. Pp. viii+202, with 88 Figures, plain and coloured. Leather, gilt tops. Price **5s.** net.

GRAY'S Diseases of the Ear.
Demy 8vo. Pp. xii+388, with 53 Plates, of which 37 are Stereoscopic, and 70 other Illustrations. Price, with **Stereoscope, 12s. 6d.** net.

GREEN'S Pathology.
Eleventh Edition. Royal 8vo. Pp. x+642, with 350 Illustrations. Price **15s.** net. (*University Series.*)

HARSTON'S Care and Treatment of European Children in the Tropics. Crown 8vo. Pp. xvi+232, with 17 Plates, plain and coloured. Price **7s. 6d.**

HYDE'S Diseases of the Skin.
Eighth Edition. Royal 8vo. Pp. xxviii+1126, with 58 Plates and 223 Illustrations, Plain and Coloured. Price **25s.** net.

JELLETT'S Manual of Midwifery.
Second Edition. Demy 8vo. Pp. xiv+1210, with 17 Plates and 557 Illustrations, plain and coloured. Price **21s.** net. (*University Series.*)

JONES' Papers of Psycho-Analysis.
Demy 8vo. Pp. xvi+432. Price **10s. 6d.** net.

KANAVEL'S Infections of the Hand.
A Guide to the Surgical Treatment of Acute and Chronic Suppurative Processes in the Fingers, Hand, and Forearm. Royal 8vo. Pp. xiv+448, with 133 Illustrations. Price **15s.** net.

KERR'S Operative Midwifery.
Second Edition. Royal 8vo. Pp. xiv+704, with 299 Illustrations, mostly original. Price **21s.** net.

KNOCKER'S Accidents in their Medico-Legal Aspect.
A Practical Guide for the Expert Witness, Solicitor, and Barrister, by leading Medical Authorities. Royal 8vo. Pp. xxviii+1266. With 206 Illustrations, Plates, and Diagrams. Price **30s.** net.

KRAEPELIN'S Lectures on Clinical Psychiatry.
Authorised Translation of the Second German Edition. Revised and Edited by THOMAS JOHNSTONE, M.D. EDIN., M.R.C.P. LOND. Third English Edition. Pp. xviii+368. Price **10s. 6d.** net.

LAKE'S Handbook of Diseases of the Ear.
Fourth Edition. Demy 8vo. Pp. xiv+286, with 4 Coloured Plates and 48 original Illustrations, and 77 Figures in the text. Price **7s. 6d.** net.

LAMB'S Diseases of the Throat, Nose, and Ear.
Third Edition. Crown 8vo. Pp. xvi+352, with 55 Illustrations. Price **7s. 6d.** net.

LAMBKIN'S Syphilis: Its Diagnosis and Treatment.
Demy 8vo. Pp. viii+196. Price **5s.** net.

MACEWEN'S Surgical Anatomy.
Demy 8vo. Pp. xii+452, with 61 Illustrations, plain and coloured. Price **7s. 6d.** net.

McKAY'S Operations upon the Uterus, Perineum, and Round Ligaments. Second Edition. Demy 4to. Pp. xviii+454, with 148 original Plates. Price **10s. 6d.** net.

McKISACK'S Dictionary of Medical Diagnosis.
Second Edition. Demy 8vo. Pp. xii+590, with 76 Illustrations. Price **10s. 6d.** net.

MARSHALL'S Syphilology and Venereal Disease.
Second Edition. Demy 8vo. Pp. xii+560, with 18 Illustrations. Price **10s. 6d.** net.

MAY & WORTH'S Diseases of the Eye.
Third Edition. Demy 8vo. Pp. viii+428, with 336 Illustrations, including 22 Coloured Plates. Price **10s. 6d.** net.

MINETT'S Diagnosis of Bacteria and Blood-Parasites.
Second Edition. Fcap. 8vo. Pp. viii+80. Price **2s. 6d.** net.

MONRO'S Manual of Medicine.
Third Edition. Demy 8vo. Pp. xxii+1024, with 42 Illustrations, plain and coloured. Price **15s.** net. (*University Series.*)

MUMMERY'S After-Treatment of Operations.
Third Edition. Crown 8vo. Pp. x+252, with 38 Illustrations. Price **5s.** net.

ONODI'S Optic Nerve and Accessory Sinuses of the Nose. Translated by J. LÜCKHOFF, M.D. Small 4to. Pp. viii+102, with 50 original Plates and Illustrations. Price **10s. 6d.** net.

PICKERILL'S The Prevention of Dental Caries and Oral Sepsis. Medium 8vo. Pp. xvi+308, with 56 Illustrations, mostly original. Price **7s. 6d** net.

ROBERTS' Surgery of Deformities of the Face, including Cleft Palate. Royal 8vo. Pp. viii+274. Price **12s. 6d.** net.

ROSE & CARLESS' Manual of Surgery.
Eighth Edition. Demy 8vo. Pp. xii+1406. With 12 Coloured Plates and 581 Illustrations. Price **21s.** net. (*University Series.*)

SCHMIEDEN'S The Course of Operative Surgery.
Translated from the Second German Edition and Edited by ARTHUR TURNBULL, M.A., M.B., B.Sc. GLASG. Royal 8vo. Pp. xx+346, with 435 Illustrations, mostly coloured. Price **12s. 6d.** net.

SIMON & BASE'S Manual of Chemistry (specially adapted for Students of Medicine, Pharmacy, and Dentistry). Tenth Edition Royal 8vo. Pp. xviii+774, with 64 Chemical Reactions in colour, and 82 other Illustrations. Price **15s.** net.

STARR'S Organic and Functional Nervous Diseases.
Fourth Edition. Royal 8vo. Pp. 970, with 30 Plates, plain and coloured, and 323 Figures in the text. Price **25s.** net.

STEVEN'S Medical Supervision in Schools.
Demy 8vo. Pp. x+268, with 40 Illustrations. Price **5s.** net.

STEWART'S Manual of Physiology.
Sixth Edition. Demy 8vo. Pp. xx+1064, with 2 Coloured Plates and 449 Illustrations. Price **18s.** net. (*University Series.*)

TIBBLES' Foods : their Origin, Composition, and Manufacture. Demy 8vo. Pp. viii+950. Price **18s.** net.

TURNER'S Radium : Its Physics and Therapeutics.
Crown 8vo. Pp. x+88. With 20 Plates and other Illustrations. Price **5s.** net.

VULPIUS' The Treatment of Infantile Paralysis.
Translated by ALAN H. TODD, M.B., B.S., B.Sc. LOND. Royal 8vo. Pp. x+318, with 243 Illustrations. Price **10s. 6d.** net.

WHEELER'S Operative Surgery.
Second Edition. Demy 8vo. Pp. xiv+296, with 157 Illustrations. Price **7s. 6d.** net.

WHITLA'S Medicine. In two volumes. Pp. 1900. Price **25s.** net.

„ **Materia Medica.** Ninth Edition. Pp. xiv+674, with 23 Illustrations. Price **9s.** net.

„ **Dictionary of Treatment.** Fifth Edition. Pp. x+1204. Price **16s.** net.

WILLIAMS' Minor Maladies and their Treatment.
Third Edition. Crown 8vo. Pp. viii+396. Price **5s.** net.

WITTHAUS' Manual of Toxicology.
Second Edition. Royal 8vo. Pp. x+1262, with 36 Illustrations Price **30s.** net.

YOUNGER'S Insanity in Everyday Practice.
Second Edition. Crown 8vo. Pp. viii+124. Price **3s. 6d.** net.

LONDON :
BAILLIÈRE, TINDALL & COX, 8, HENRIETTA ST., COVENT GARDEN.