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DRUNKENNESS

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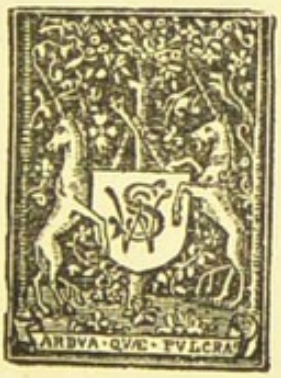
DRUNKENNESS

BY

GEORGE R. WILSON, M.B., C.M.

ASSISTANT PHYSICIAN, THE ROYAL ASYLUM, MORNINGSIDE, EDINBURGH



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PREFACE.

THERE is no scarcity of books on drunkenness. Dr. Kate Mitchell has already contributed to this series a comprehensive work on "The Drink Question," and both at home and abroad there have been innumerable publications dealing more or less directly with the subject. Most of these are almost purely scientific, or may be classed as "temperance books." At the outset I give fair warning that the present volume is not in any sense a text-book of teetotalism. That aspect of the question I have studiously avoided, having no important contribution to make to it. Nor have I written expressly for the physician, though I hope that I shall not wholly fail to interest him.

The book had its beginnings in a course of four lectures delivered a year ago to the students of the Edinburgh Free Church College, and if its publication should prove a matter for gratitude, the thanks are largely due to their kindly appreciation of my work.

My primary object has been to present the student of Social Science with a study of drunkenness regarded as a nervous disease. And at once let me say that, in taking this view, I have no desire to

explain away the drunkard's vice, or to take from its ethical significance. Much less do I desire to abate the necessary restrictions and penalties attaching to his habit. If we can show that depraved character and perverted conduct are the outcome of self-imposed nervous impairments, we do not thereby establish a case for less rigorous treatment, but rather more. And if, in our study of causation, we find that the drunkard is so by reason of an ill-organised constitution, that is all the more reason why we should surround him with the strongest possible barriers against excess and the highest incentives to self-control. But while out of justice to society it may be necessary that our treatment of him should be severe, it is only fair to himself that it should also be appropriate. I have made it my chief object to contribute to that end.

In the first chapter I have devoted a section to the enunciation of certain principles which psychological medicine brings to bear on the study of such conditions as drunkenness. My statement of them is necessarily meagre, and I fear that this section may prove dull and even unintelligible to all but the specialist. I do not claim for these physiological considerations that they are a *sine qua non* of sober living, or that very good temperance work cannot be done from an entirely different standpoint. But I do claim for them that they are essential to an understanding of the real nature of the drunkard's malady,

and indispensable to a true estimate of his curability.

In the second chapter, on pathology, I have given scant consideration to the familiar derangements of organs incidental to habitual alcoholic indulgence. The drunkard, as an object-lesson and a warning, has proved an ineffectual preventive of excess. Current books on the subject have told us enough about the gin-drinker's liver and his dyspeptic stomach to make us dread his habits. It is time we devoted our attention to the essential symptoms of his disease.

In the chapter on causation I have tried to get nearer the root of the matter, and to find out why only some drinkers are drunkards. Drunkenness is more preventible than curable, and a study of its etiology gives the reason for the incurability of many cases.

In the last chapter, on therapeutics, I have endeavoured to suggest the most hopeful means of cure. In particular, I have devoted considerable attention to the "moral treatment" of the patient, and have given a relatively large amount of space to proposed legislative reforms. In this latter connection my fear is that, being somewhat removed from the main current of opinion, my information may not be up to date, and I have borrowed largely from authoritative sources. Finally, I have sketched the working of Restorative Homes under a Habitual Drunkards Act,

being convinced that the cure of a large number of patients is hopeless until compulsory treatment is made legal.

I have acknowledged indebtedness to various authors, especially to my teachers, Dr. Jackson and Dr. Clouston, from whom I have learned more than I can say. I am also under an obligation to many friends who have consciously or unconsciously been of service in making suggestions, in revising manuscript, and in other ways. I should gladly make my thanks to them more explicitly, but that I hesitate to put their names in so paltry a setting.

I have aimed at giving continuous form to the text, but I have prepared a table of contents, which puts the matter in a more graphic way, and which is full enough to supply the lack of an index.

EDINBURGH, *March*, 1893.

CONTENTS.

CHAPTER I.—PHYSIOLOGY.

CHAPTER II.—PATHOLOGY.

CHAPTER III.—Etiology.

DRUNKENNESS.

CHAPTER I.

Physiology.

THE POINT OF VIEW.

Intoxication, to the ordinary observer, is loss of self-control; to the physician, it is the physiological effect of alcohol on the brain. Usually, drunkenness is merely regarded as a vicious habit; scientifically, it is a reduction of mental capacity due to deterioration of brain-tissue. To the moralist, the preacher, and the social reformer, drunkenness is an impressive spectacle of human degradation. But all human history however sad has its scientific interest, and we must

not be wholly distracted from this by ethical considerations, however important these may be.

It may be said that the physician should restrict his attention to the bodily ailments which accompany drunkenness, that he is not primarily concerned with character, and that, for the most part, he would be wise to leave the drunkard to the clergy and the police. But habit has a physiology as well as a psychology; vice, too, after a certain stage, has its pathology. The point is, that conduct is related to a physical basis. Self-control, habit, struggle, weakness—these, and other phases of mind, have all their appropriate representation in the brain. The history of a man who drinks himself slowly to death may be expressed in medical terms descriptive of the various stages of a kind of creeping paralysis. To arrive at such a view of drunkenness—and it has both practical and theoretical interests that repay some trouble—it is necessary to consider very briefly some of the principles of nervous action which are chiefly involved.

PRINCIPLES OF NEUROLOGY.

The nervous system is a mechanism organised so as to manifest nerve-force or nerve-energy. It is arranged from top to bottom on one plan—*the sensori-motor plan.* The cell is the unit of structure; and every cell has a kernel or nucleus, and branches called nerve-fibres. The cell stores energy and controls it; the fibres conduct it. Every cell has a fibre bringing nerve-motion to it, called the sensory fibre, and another conducting energy from it, called motor. The brain has millions of such cells, arranged on this plan, and associated with each other by communicating fibres. When a number of cells and fibres have, by frequent repetition, become identified with the performance of a certain function, we call the associated group a "centre," and designate it by the name of the function which it subserves. We speak of the "speech-centre," which is the nerve-mechanism of speech, the "arm-centre," the "leg-centre," and so on. Some of these groups of functionally-associated cells and

fibres are localised in a small area, others are diffuse.

I have said that the nerve-cell stores energy and controls it, but knowledge on the subject is somewhat vague and theoretical. It is believed that the cell builds up its elements into more and more complex combinations, every minute of physiological rest adding to the sum of latent energy in the structure, and adding to its instability. The normal stimulus appropriate to the excitation of such a fully charged centre varies according to the development and habit of the mechanism. In the healthy organism some centres, even when fully charged, are extremely stable, so that all but the strongest excitants fail to induce their discharge. On the other hand, the mechanisms of functions which are still in the course of their development, that is comparatively recent, and which are in almost constant operation, acquire a readiness for discharge whereby they are excited by various forms of stimuli seemingly trivial and inappropriate. As a rule, there is established by repeated association a kind of prescriptive right in this matter, so that the discharge occurs without fail whenever the

habitual stimulus is applied, but not otherwise. Such is the curious law, that combinations of nerve-mechanisms and lines of nerve-action are apt to follow precedent. On this account nervous processes by frequent repetition tend to become "reflex"—that is, they are performed without attention. Sometimes a stimulus which is ineffectual on a first application will succeed in exciting a discharge if again and again repeated. Invitations or suggestions to certain modes of action, which at first fail to excite interest, may by importunate repetition achieve their end. This is the principle of *the cumulation or summation of stimuli.*

But there is an important modification of these principles of stimulus and discharge. In the sphere of the vital functions especially, such as respiration and circulation, there are certain centres which are said to be "automatic," whose discharge is rhythmical, and independent of any known stimuli. In the course of evolution vital necessities have imposed on these cells an independent mode of action, so that they discharge nerve-energy at more or less regular intervals, and with but a slight reference to

any known stimuli. In brains which are of what is called an "unstable" quality, this tendency to discharge independently of appropriate stimuli is sometimes manifest in the nervous mechanism of the higher[1] functions. Such an action is called "fulminating" or "explosive." "Fulmination" is an automatic disturbance in centres which have accumulated energy to the point of spontaneou discharge. The defect which causes it is a lack of inhibitory quality, to which we shall advert later. There is no adequate stimulus to account for a fulminating discharge; and it usually occurs with some kind of periodicity. A convulsive seizure is a "fulminating neurosis" of the motor centres; morbid mental processes, marked by periodic unaccountable paroxysms, are called "fulminating psychoses."

Another and fundamental principle of nervous action, the *Law of Coincidence*, as laid down by Hughlings Jackson and others, ensures that every function or use of the body, and every process of the mind, is represented in some sort by a sensori-motor mechanism in the nervous system. Some of the organs have

[1] Functionally, not locally.

their centres close by them; others are represented in the spinal cord; others in the brain. In particular, the highest realms of the brain are the organ of mind, the physical basis of character. This relation constitutes a vexed question in psychology. All authorities are agreed that nervous changes are not transformed into processes in consciousness, and that mental operations do not become nervous. But it is obvious that there is an interdependence between the two, that nervous changes cause mental processes, and *vice versa*. On the sensory side, for example, all conscious processes have a nervous representation. When we see, or feel, our brains are busy at the basis of the operation; and any flaw in the mechanism implies an imperfection in the process. So, too, on the motor side, every act has its physical basis. Choice implies a refined nervous change: conduct has a groundwork in nervous action. And here, again, any defect in the mechanism of expressive activities leads to perversion of conduct. It is only in relation to the more abstract mental processes that the hypothesis of universal coincidence is unverifiable.

According to this law of coincidence every new function and faculty acquired by man implies a new development of nervous mechanism. In other words, the nervous system is not all of the same age. It has developed gradually *pari passu* with the evolution of character. If we could tabulate the functions in the order of their evolution, we might theoretically build up the nervous system, layer upon layer, until the pile should be complete. This is the theory of *Functional Levels;* and some facts in connection with it throw a strong light on the phenomena of drunkenness. We may conveniently make an arbitrary division into three great levels—highest, middle, and lowest. (Jackson.) We can best learn their important characteristics by illustrations. The processes of nutrition, for example, have a nervous basis which belongs chiefly to the lowest level. Circulation, respiration, digestion, growth, are old established functions, and their centres are buried deep in the nervous system. The most obvious characteristic of these functions is that they are vital, and that is one characteristic of the processes of this level. Also, nutrition is more automatic than the higher functions, that

is, it is further removed from the sphere of the will—a second characteristic of the lowest level. Or, again, let us take a movement such as the opening of a lock with a pass-key. The muscles concerned, and their nutrition, would have their centres on the lowest level; the movement, with the association of muscular action required, would be represented on the middle level; the conception of the movement, the idea of a lock and a key, and all associated notions, would have their basis on the highest level. Now, conceptions are more complex than movements, and movements than muscular contractions. Complexity then is a characteristic of the highest level, simplicity of the lowest. Further, the processes of the highest level, besides being complex, are more delicate and easily destroyed than those of the lower levels. The higher levels, being last acquired, are the least organised, the least stable, the first to become impaired in any process of general deterioration. The nervous processes concerned in right conduct, therefore, which are well within the sphere of the will, are complex, delicate, and easily overthrown, while, as we descend the functional scale, we find

the processes becoming more and more simple and stable, until we reach the automatic mechanisms of the vital functions which are almost quite beneath our ken, and which are known to physicians as "organic reflexes."

There is a remarkable interdependence of function and mechanism ensured by the fibres which associate the various centres. This constitutes our next principle—the *solidarity of the nervous system.* Every organ and function of the body has a triple representation in the nervous system, a basis in each of the three levels. There is no detached nervous mechanism; there are no cells and fibres that are quite isolated. All the various mechanisms are connected directly with the central nervous system, indirectly with each other, and with the highest nerve-centres. The interaction of mechanism is well illustrated in a function of nerve-centres best known by the name of *Inhibition.* No sooner is the mechanism of a new function acquired than it is associated with other centres which keep it in check. The relation is often mutual between two centres, so that, when one is in activity, the other is in abeyance.

Inhibition, say of a movement, may be a function of its own mechanism ; or a group of cells and fibres may become specialised to take on the inhibitory function, separated off, as in the case of the heart, from the centre it inhibits. In the latter case inhibition tends to become an independent function, an automatic process ; in the former it is more in relation to associated centres, under whose stimuli it acts. It is noteworthy that inhibition, being a late acquisition, is unstable and easily impaired as compared with the function it controls. The first symptom of degeneration in a centre is often the overaction of lower mechanisms which the diseased centre fails to inhibit as it should. All such uncontrolled actions are but the positive symptoms of disease. The disease itself consists in actual, destructive impairments of mechanism, having, as its negative symptoms, corresponding losses of function.

Muscular *Co-ordination* is another example of nervous interaction. There is a solidarity of the muscular centres, as of the whole nervous system. The mechanism which excites a certain muscle to contract never subserves that function only, but is always related to the

centres of other muscles. So that, for a desired muscular effect, the mechanism ensures an abeyance of contraction in antagonistic muscles, or just that amount of contraction which is requisite for the balance of the movement; and, in contributory muscles, there is a co-operation of the necessary contractions, based on nervous associations, which ensures the conjugate movement. The mechanism of co-ordination is very gradually and laboriously acquired, and is most complex and delicate. If it is defective, movements can only be simple, incomplete, and clumsy; at its best, it ensures aptness, grace, and poetry of motion.

INTOXICATION.

If a man drink a considerable quantity of an alcoholic liquor, a large amount of the alcohol passes unchanged through the bodily system, and is excreted as such. The alcohol mingles with his blood, and is carried with it through every part of the body, so that, if he die soon after drinking, it may be found in all the large organs. This is notably the case with the liver,

but most of all with the nervous system. A kind of "elective affinity" seems to exist between brain-tissue and alcohol; and it is on this account that we regard drunkenness as essentially a nervous affection. This organic selection is not exclusive, for other systems, such as the digestive, may be materially impaired. But it is essential, for, while a man might drink to excess and yet preserve his digestion, a drunkard who exhibited no impairments of movement or defects in intelligence would be an anomaly.

Most of the drugs which select the nervous system have the further property of acting mainly on a particular part of it. Strychnine, for example, acts chiefly on certain elements in the spinal cord; bromides affect the mechanism of the middle level primarily; and sulphonal has its deepest effects on certain functions of the highest level. Alcohol is usually understood to have a general action. But before that general narcotic effect is brought about, it has a primary selective action on the nerve-centres which regulate the blood-supply, and, in particular, the blood-supply of the nervous system. This immediate result of alcohol is called "stimulation," and occurs for the most part before the

alcohol has been long in contact with the brain-tissue. It begins as a reflex effect from the excitation of nerve-endings in the mouth, gullet, and stomach, and persists for some time after the alcohol has been swallowed. Both the heart and the blood-vessels are affected. The heart's action is hurried and vigorous, and the blood-vessels are enlarged in calibre, so that there is an increased blood-supply in the regions involved, accompanied by a pleasant glow. This comforting sensation seems to spread through every organ; and this accounts for the erroneous belief that alcohol increases the body-temperature. (As a matter of fact, when stimulation is at an end, alcohol impairs the quality of the blood, and tends to lower the heart's action.) The functions of the brain especially manifest this immediate action of the stimulant. For a time, all the nervous processes are better performed. Thinking is easy, judgment is quick and clear, imagination is active, expression is ready, muscular feats are simplified, and activity is increased; above all, as organic "congratulations" pour in, the sense of bodily well-being is magnified and delightful. This is the effect for which most

men begin to love their wine. Unhappily it is short-lived and reaction courts excess.

The succeeding effects produced by alcohol taken in considerable quantity constitute alcoholic narcosis or intoxication; and the phenomena of this condition illustrate some of the principles of nervous action which we have considered, and throw an important light on the permanent impairments that follow its too frequent repetition. It is obvious that alcohol cannot exist as such in the blood, and therefore in immediate contact with nerve-cells and fibres, without producing a direct effect on their constitution and action. Moreover, it is an established fact that alcohol interferes with the function of the blood, so altering its character as to impede the aeration of the tissues and the repair of waste. The brain shares with the other organs in this defect of nutrition.

Very soon after it has been swallowed, and before stimulation has passed off, alcohol is coursing through the system with the blood-elements, so that, directly and indirectly, it speedily affects the nervous processes. Typically, the action induced in the brain is of the nature of a progressive paralysis, beginning

with the *highest level* and its most delicate functions, and spreading gradually downwards through the lower. Moral qualities and the higher processes of intelligence are therefore first invaded. Self-control is lost, and judgment defective, "while imagination may be lively and the emotions even more than usually active, so that, after a man becomes incapable of discussion, he is combative, affectionate, or lachrymose." (Lauder Brunton.) At a later stage, with the abolition of imagination, feeling, and will, the man becomes stupid, dull, and passive.

In this lapse of the intellectual functions, memory is necessarily involved. Intoxication does not generally abolish the recollection of past events, so long as there is attention enough left to operate in it. But there is established a curious condition of trance, of which many excellent examples have been recorded by Dr. Crothers and others, in which the person may react to his surroundings in an apparently normal manner, but, on emerging from intoxication, be unable to recall the events of the trance-period. I remember a man who, in the trance-state, travelled to and fro in the north

of England, and, on becoming sober, had lost count of a whole day and its events. At this stage there may be nothing in the patient's manner and general behaviour to suggest intoxication; his conduct, to a casual observer, may appear quite normal. I am inclined to think that impressions, in this state, do not greatly lack vividness, but that it is the associational factors, necessary for subsequent recollection, which are chiefly at fault. Somnambulism bears a resemblance to this phenomenon, as does also the condition of the senile memory; and a very similar state may be induced by a blow on the head, "shock," intense excitement or panic.

To interpret the signs of intoxication aright, it is necessary to remember that, at any given stage, there is not only an abolition of certain faculties and moods, but also the exaggerated action of those normally in abeyance—a loss of inhibition. Theodore Hook, at the dinner-table, lost his natural reserve and nervousness, and, giving his wit and humour full play, could sing improvised verses descriptive of his neighbours, or give graphic impersonations of public men and

personal friends. Burke, the criminal, is reported to have required a glass of brandy before murdering a child, so as to abolish what represented his finer feeling, and give the rein to his lower passions. (Carpenter.) During intoxication, the reproductive instinct and its passion are apt to assert themselves, according to the principle which we are now exemplifying. And here is a quotation from Dr. Clum ("Inebriety") giving a most interesting example of a similar rise of the maternal instinct during a drinking-bout. The case is that of a girl, aged 22, unmarried, who, when drunk, had appropriated a little child not her own, and clung to it fondly. "A single instance would not warrant one in concluding that whisky would have this effect upon such a creature," said an officer; "but," he resumed, "it most always does upon this woman. When she gets on a regular drunk she always 'cabbages' a young one—no matter what sort of one—and caresses it till she sobers up, when she drops it like a hot potato." Dr. Mercier ("Sanity and Insanity") takes note of many phenomena of drunkenness to illustrate this principle, including the familiarities, improprieties, and

quarrelsomeness that characterise some people when intoxicated.

In the realm of movements and sensations—for the most part, functions of the *middle level*—the same manner of invasion obtains. The speech function illustrates the principle admirably. The niceties of expression are first lost, then delicacy in articulation, so that a wily inebriate purposely steers clear of difficult words; later, inflection is at fault. One may observe a gradual deterioration in the literary quality of drunken conversation; the phrases are inappropriate, the words less and less expressive. Later there is an increasing difficulty in pronouncing certain combinations of letters, leading to slurring and stumbling in articulation. Then the voice loses clearness and musical quality; there is a limitation of the range of inflection and a lack of the appropriate cadences and variety in pitch, so that the sentences drawl or creep out in monotones; sometimes a strongly-marked native accent is laid bare, as if a superficial layer of acquired gloss had been rubbed off. Similarly the quality of the conversation deteriorates—a mental rather than a motor defect, which, but for convenience, should

come under the heading of high-level impairments. Reflex speech, requiring no thought or effort, and generally in the form of a stereotyped reply appropriate to a familiar stimulus, may persist long after intelligent conversation has become impossible; finally, emotional speech alone may remain—expletives, and inarticulate expressions of feeling. With other motor functions the order of impairment is the same. Movements requiring the most delicate co-ordination are first touched. A man may be able to walk without difficulty, to stand upright, and perform many simple movements, and only find that he has exceeded in wine when he attempts to correct his watch, or essays delicate operations at billiards. Blunting of sensation is almost invariable at this stage of intoxication, though not obvious to the casual observer. At first, there may be merely inaccuracy in the fine discrimination of impressions, but, later, the loss of sensibility is most marked. The disorders may be observed in the processes of all the senses; but, in their estimation, it is difficult to exclude fallacies due to defective attention. The defects most commonly observed are in connection with the visual sense,

perhaps because the complications induced are frequently ludicrous. Touch-sense is also interfered with, and sensibility to pain. I have seen a woman in the Edinburgh Infirmary who, when intoxicated, sustained a compound fracture of the right leg, and walked a considerable distance to her home with the protruding bone on the ground; and it is well known that brandy has frequently been administered successfully as an anæsthetic during surgical operations.

There is a sense generally omitted from the popular catalogue, and imperfectly understood even by scientists, called the "muscular sense." It is something over and above the senses of sight and touch, though dependent upon them for its development, and closely associated with them in its operations. It is the sense by which we estimate the amount and quality of muscular effort, and its direction. If we extend the arms like outspread wings, shut the eyes, and slowly bring the finger-tips together, it is the muscular sense that guides them. It informs us also of the attitude of the body, and of the relative position of the limbs, when visual and tactual information is awanting. In intoxication, its

impairments are very obvious, and often grotesque. They are usually associated with defects of balance ("equilibration") and of vision. A drunkard may see two persons approach him where there is only one, yet fail to steer himself between them; he may clearly see a lamp-post stand quite still, and even without staggering find it meet his shoulder; he may be fully aware of a step down and miss it; he may see the floor on a inclined plane, and adopt a prancing gait, or, with the carpet pattern falling away from him, plant his foot down firmly with a flop; he may hold a pen and not feel its grasp; or feel his shoulders too broad to pass a portal. All such phenomena are examples of a loss of co-ordination between the senses, and of sensori-motor co-ordination; but it is the muscular sense which is chiefly involved. The results are sometimes serious, for a man may kick his wife to death with "the deadly intelligence born of whisky" and not know the direction and force of his blows, nor feel their deadly impact.

Even on the *lowest level*, if intoxication proceed to death, alcohol kills by stoppage of respiration before circulation is abolished, thus

fulfilling to the end the law that functions vary in stability in the order of their evolution.

Such an account of intoxication, however, is manifestly theoretical and ideal. Two considerations qualify the typical account of the process. Actual observation would establish the fact that, long before the mental functions are completely abolished, there are serious motor impairments; and, long before movement is quite lost, the vital functions of the lowest level are invaded. This is the "compound order" (Jackson) of alcoholic narcosis. If we represent the three levels by the symbols H, M, and L, we might arbitrarily divide intoxication into three stages, and express them thus:—H^1, $H^2 M^1$, $H^3 M^2 L^1$. That is to say, as intoxication proceeds in the lower levels, the higher functions are being more and more deeply affected. The second qualification is with regard to the personal equation. The signs of intoxication vary largely with the individual; account must be taken of his normal condition and character with its habits, manners, and accomplishments. Cases occur in which gastric symptoms occur at a very early stage, or some sign of affection of the liver—symptoms which seem to call in ques-

tion the assumption that intoxication is an affair of nerves. And, even in nervous signs, there are large individual variations. The bashful lose their nervousness, the reticent grow friendly. One man knows to stop drinking when his fingers lose their touch ; another counts the lights early in the evening, and retires from the feast when the number begins to vary ; a third tests himself by the feeling of his lips, and withdraws when "they put their gloves on." Habit and occupation account for many variations. I have known a huntsman sit well in the saddle when he could not stand beside it ; a cyclist who rode hard without mishap for miles, though he could not wheel his machine for ten yards ; and a bachelor who opened his "Chubb" at a first attempt, though the limits of an eight-foot path were too narrow for his gait.

This review of the phenomena of intoxication is manifestly incomplete. For instance, I have both here and in the next chapter omitted an account of the variations due to the particular form of stimulant in use. I have not attempted to cover the whole ground, but have merely selected those facts which illustrate best the principles on which all the signs of intoxication may be interpreted.

CHAPTER II.

Pathology.

ALCOHOLIC DISSOLUTION.

If we have interpreted the signs of intoxication aright, and have associated them with their coincident physical changes, it is easy to understand that habitual drunkenness signifies permanent impairments in the nervous system. This chronic condition consequent upon habitual excess is best called "alcoholic dissolution." The term implies a retrogressive pathological process—the reverse of evolution. The same idea is conveyed in the use of the word dissolute to describe the condition of a man whose moral character is being disintegrated.

There are two elements in the causation or etiology, as physicians call it, of the nervous degenerations consequent upon habitual excess. In the first place, there are the

recognised effects produced by the direct action of alcohol on nerve-tissue, and by the impoverished quality of the blood-supply. These are chiefly of the nature of degenerative breaking down of the nerve-elements, thickening and inelasticity of the blood-vessels, and an overgrowth of the tissue-elements which normally serve as the mere groundwork in which the nerve-elements are embedded. The second causal factor is closely associated with the beginnings of drunkenness. It may be called degeneration initiated by the habitual abeyance of the organic basis of altruism—a term which requires some explanation. By the law of coincidence, good conduct, like every other mental habit, must have an organic basis, a mechanism of nerve-cells and fibres. Now, as altruism can be given effect to in every part of conduct, the mechanism representing it must be very complex and very delicate. Moreover, higher morality is a late acquisition, and therefore its mechanism is unstable and easily impaired. It is on this account that moral lapses commonly occur in the early stages of brain-trouble, and often initiate a progressive dissolu-

tion of mental function. In the case of chronic drunkards the development of the alcoholic habit signifies in some cases that their altruism was abnormally defective from the first—a mild moral imbecility, in fact; in the majority, the habitual excess initiates a pathological process under which altruism gradually disappears. This degeneration, through vice to disease, is eloquently expressed by Dr. Maudsley ("Pathology of Mind"). "Good moral feeling is to be looked upon as an essential part of a sound and rightly developed character in the present state of human evolution in civilised lands. Its acquisition is the condition of development in the process of humanisation. Whosoever is destitute of it is to that extent a defective being; he marks the beginning of race-degeneracy; and, if propitious influences do not chance to check or to neutralise the morbid tendency, his children will be actual morbid varieties. Whether the particular outcome of the morbid strain shall be vice, or madness, or crime, will depend much on the circumstances of life; but there is no doubt in my mind that one way in which insanity is generated *de*

novo is through the deterioration of nature, which is shown in the absence of moral sense. It was the last acquisition in the progress of *humanisation*, and its decay is the first sign of human degeneracy. And as absence of moral sense in one generation may be followed by insanity in the next, so I have observed that, conversely, insanity in one generation sometimes leaves the evil legacy of a defective moral sense to the next. Any course of life, then, which persistently ignores the altruistic relations of an individual as a social unit, which is in truth a systematic negation of the moral law of human progress, deteriorates his higher nature, and so initiates a degeneracy which may issue in mental derangement in his posterity."

ALCOHOLISM.

The dissolution of the nervous system, and the gradual impairments of its functions, consequent upon alcoholic excess, constitute what is called by physicians "chronic alcoholism." The term should be made to include deteriorations in character, met with in habitual drunk-

ards, which are popularly considered merely as coincident vices and defects in intelligence, and which are not generally referred to the degenerations in nerve-mechanism which really underlie them. The principles of neurology which we have briefly considered furnish us with a physiological basis for an intelligent appreciation of the characteristic changes. Such a point of view gives an insight which prepares us for new developments in drunkenness, teaches us to some extent the limitations imposed by the bodily system, and suggests the most hopeful lines of treatment.

The symptoms to be observed are best classified on the theory of functional levels, bearing always in mind the variations due to the personal equation, and the fact that the order of dissolution is a compound order.

Deterioration of Character coincident with Dissolution of the Highest Level.

The typical drunkard is a graceless, unpleasant egotist. He is irritable and exacting, peevish, petulant, and hypochondrical. He is an unpleasant person to live with, for he has

stripped himself of the virtues that make for peace and happiness. He has the selfishness that characterises men who labour under the organic ill-being that follows excessive self-indulgence, and he must add to that the sense of moral ill-being and of failure. He gets out of sorts, becomes self-centred, feels sorry for himself, and demands sympathy and consideration. Afraid to cross him, his friends exaggerate the evil by trying to make things easy for him, instead of teaching him to accept the conditions he has imposed upon himself. It requires more pluck and self-control than the drunkard can command to accept failure without excuses, so he becomes talkative and untruthful. I have never known a drunkard who was not a liar, and usually he is a bad liar. There is a constitutional disability to perceive the truth and appreciate it, and a gradual development of the untruthful habit. At first, the drunkard may simply resort to inexactness and exaggeration for self-protection, but afterwards he takes to deliberate falsification, and makes a rapid descent through evasion, concealment, and duplicity to gratuitous and cruel lying. At the same time, his whole habit of mind tends

towards dishonesty. Commercial honesty is a comparatively deep-rooted habit, and hedged about with rewards and penalties, so that embezzlement and kindred crimes are generally deferred until the later stages, when the man's position is hopelessly compromised, and his morals are in rapid retreat. But long before that stage, one may observe in him a growing insincerity, a loss of the frankness and ingenuousness of the man who has nothing to hide, and a habit of concealment in excess even of what self-interest seems to dictate. Conscious of duplicity in his own mind, his faith in his neighbours is shaken, and suspiciousness companions his insincerity. If moral questions are being discussed, he will assume a knowing look, or risk a query half in jest and half in earnest, that reveals how difficult he finds it to appreciate a standard of morality higher than his own, and how ready he would be to hear confirmation of a theory of all but universal depravity. He is apt to entertain the fancy that there is something in everyone he meets which he would do well to be on his guard against; and from this general feeling he may go on to give concrete expres-

sion to his supicions. This is all the more likely if he exhibit that dangerous loss of reticence which usually characterises the drunkard at some stage in his career. The friends of the patient would do well to bear in mind this growing tendency to talkativeness. Even the most confidential information is liable to be retailed, provided there be memory enough left to carry it.

These and kindred changes go to make up the loss of tone in men in whom the deterioration is so slight that their friends merely say of them that they have become "coarser in the grain." And it is needful to observe that these signs are only of importance as evidence of alcoholism when they occur as notable deviations from the normal character. An impenetrable manner, disingenuousness, overbearing egotism, and even ill-tempered lying, are far from exclusively characteristic of the drunkard.

Grosser immoralities follow if the degenerative process, once begun, be not checked by abstinence and appropriate treatment. Of sexuality we need only observe that the first transgression is in many cases committed

when intoxication has relaxed control; that those who transgress habitually, either for pleasure or for gain, find whisky help excess; and that the chronic drunkard may experience this companionship of vices, not of his own seeking, but as one of the inevitable fruits of his habit. Violence of a serious kind is rarely met with except during intoxication, or in some of the forms of alcoholic insanity. But impulsive promptings to violent acts are common with nearly all drunkards. Fits of passion are frequent, and trifling provocations evoke a wholly disproportionate expression of feeling. As with other impairments, this tendency to violence denotes defective inhibition and the uncontrolled action of the lower functions—the exaggerated manifestation of a feeling for which, in well-constituted men, a moderate expression is sufficient. As to suicide, it is impossible to estimate how often alcohol is an important element in causation. There are few cases of habitual drunkenness going on to insanity without frequent suicidal promptings, and impulsive attempts are not uncommon. Whether it will occur or not depends largely on the tem-

perament; and the suicidal tendency is sometimes a family taint. Magnan, an eminent French authority, gave 7 to 15 per cent. as the number of alcoholic cases that attempted suicide. Dr. Bevan Lewis ("Text-book of Mental Diseases") found that 40 per cent. of his cases of alcoholic insanity were regarded as decidedly suicidal. Dr. Norman Kerr ("Inebriety") states that, according to a chaplain at Clerkenwell Prison, no other contributory cause of suicide was found in 145 out of 300 cases. Even in 46 cases of boys and girls, 10 suicidal attempts were directly due to alcoholic indulgence.

The emotional vagaries of the drunkard take their colour according to his inheritance and daily habit. He is usually variable in his moods, so that one cannot reckon with his views and feelings—one hour easily pleased, happy, and facile; the next, discontented and querulous, despondent, or obstinate. Frequently he develops a frothy sentimentalism, with a fondness for dreamy self-feeling and emotional expression, which relate chiefly to affairs of love or of religion. Sometimes a settled gloom sits on the man,

that may be madness; or a morbid hilarity in which he dwells as in a happy world of his own apart from all misfortune. In some cases, the emotional condition sways between the two extremes, the swing of the pendulum spread over months or years—a kind of "*folie circulaire.*" Or the emotional colouring may be of a lighter tinge, so that the moderate man becomes a silly optimist, or dons the darkened spectacles and is unable to see the good that is much less the good that will be.

The defects of memory in alcoholism claim special attention both for their practical importance and for their scientific interest. We have already hinted at them in the section on intoxication. Nowhere, perhaps, in the sphere of everyday psychological phenomena, is the relation of mind and brain more intricate and more unintelligible than in the operations of memory. A useful though arbitrary analysis divides memory into three processes: retention of the impression, reproduction of the image, and recognition. Retention is the peculiar function of the nervous mechanism, an automatic process quite out-

side of our control; reproduction is implied in recollection, and that, in part at least, is a voluntary process. Retention is like the work of the camera and plate, which only requires certain conditions to be fulfilled that it may be successfully accomplished; recollection compares with the subsequent process of developing the retained image. Finally, recognition comes to clinch the operation, an automatic process again, which excites in us a sense of familiarity and assurance, that says of the image: "This is not new nor strange; this is familiar; this is what I have been looking for." In intoxication, and perhaps in chronic alcoholism, the retentiveness of the susceptible mechanism may be interfered with. For the chief condition of successful retention is a monopoly of attention at the time of impression, and for a brief period following it. Any distracting interest, any emotional strain or undue excitement, may blur the image. Perhaps also the direct effect of alcohol may impair the susceptibility of the retentive centres, but probably not to any great extent. Oftener it is the function of reproduction which is impaired. The impres-

sion is there, if the operator could but lay hands on it. This is brought out by an observation, verified by many authorities, that a man may forget the things he has done when intoxicated, and only be able to recollect them when intoxication has again restored the conditions favourable for reproduction. Dr. Clum mentions an illustrative case. "An Irish porter in a warehouse delivered a package at the wrong house during one of his drunken sprees, and, when sober, could not recollect what he had done with it; but the next time he got drunk he recollected where he had left it, and went and recovered it." I have observed several similar examples.[1] But it is in the processes of recognition and allied functions that the most interesting and grotesque mistakes are made by the habitual drunkard. The disordered brain refuses to operate for recognition when it should, and

[1] The phenomena of the trance-state may be induced in chronic alcoholism, but generally as a form of intoxication. Its most conspicuous characteristic is a defect of memory (see p. 16). It bears a close resemblance to the dreamy-state observed in epileptic patients, and may be associated with a mild convulsion seizure.

accordingly familiar objects seem strange, and facts brought to his recollection fail to excite conviction; or the mechanism for recognition reacts to the wrong stimuli, and he has a sense of familiarity with new surroundings, or greets a strange face with the assurance of a time-honoured friendship. Closely allied to these mistakes in identity, there are defects of "orientation"—the function whereby we "place" ourselves, recognising time and space relations. By this function we take stock of our surroundings, and are aware of times and seasons, recognising the place where and the time when. In alcoholism, orientation is almost invariably impaired so that, in advanced stages, the patient easily loses himself, mistakes the hospital for home, cannot find his way even by a route that he has traversed daily, and fails to judge intervals of time and to realise the drift of the seasons.

Another group of symptoms is important because of the obstacles it offers to reform. Alcoholism goes on to dementia, and alcoholic dementia is like premature senility. The drunkard's hold on life is slack; he has ceased

to have pleasure in it. His interest is abated, and his energy is at the ebb; there is no initiative in him, habit enslaves him, and he is reconciled to sameness. At the same time, his imagination is impaired, and the power of abstract reasoning; he cannot picture the consequences of his acts, nor infer what possibilities are denied him; his expectations are at the mercy of his moods. The insane sanguiness of the drunkard is proverbial,—a *spes vinosa*, comparable to the unfounded hopefulness of the consumptive, and the irrepressible exaltation of the general paralytic. There is also a marked defect of attention, both in mental concentration and in its larger manifestation which is implied in persistent effort. Then follow mistakes in judgment. In business and in play he loses nerve and is afraid, or loses caution and is rash. He cannot strike the balance of probabilities, nor suit his actions to the time; he holds back when the tide is at the flood, or plunges in the shallows. Perhaps he wanders further, to the borderland of delusion, and loses his way in a gross overestimate of his worth, or falls into fanciful suspicions of his friends.

Symptoms of Dissolution on the Middle and Lowest Levels.

The motor symptoms of alcoholism are, generally speaking, the muscular impairments of intoxication made permanent. The principle of dissolution from above downwards is well illustrated by the drunkard's tremulousness. Shaking, or shivering, is due to a defect of the balance of muscular action, and the impairments are most marked in the higher spheres of movement. Dissolution proceeds from the voluntary to the automatic. It is obvious that the highest movements are movements of expression,—purposive movements, that are closely related to the will in its expression of ideas. Hence the frequency of a shaky voice and tongue and lips; and the fine shivering tremors that play about the corners of the mouth and round the wings of the nose. And, if the tremors descend to the limbs, they first invade the fingers (not the thumbs), spreading abroad till the whole hand shakes, and creeping up the arms. The lower limbs grow tremulous last of all, their movements being largely automatic.

Loss of power is not uncommon. I have

known a patient, emerging from *delirium tremens*, whose reins dropped once and again from his fingers, owing to a sudden and transient loss of power, — an impairment probably of the lowest level. Much more commonly the loss of power is a defect of co-ordination. The patient fails to execute delicate and finished operations; his movements are jerky and ungainly, inexact in direction, and variable and fitful in amount. Exception may be taken to calling these incoördinations loss of power; but the defect is really a loss of intermuscular inhibition; it is a loss of the function which the motor mechanisms have of controlling antagonistic and conjugate movement. Actual loss of muscular power, loss in amount, is a common symptom. This is illustrated, for example, in an enfeebled hand-grasp—a low-level impairment. Alcoholic convulsions would come under the heading of this section, were it appropriate that we should consider them; but the analysis and classification of fits is only of interest to the specialist.[1]

[1] Krafft-Ebing finds epilepsy in about 10 per cent. of his alcoholic cases ("Lehrbuch der Gerichtlichen Psychopathologie"). The proportion is much greater than in this

Perverted sensations of all sorts are frequent in drunkenness. Vision, in chronic alcoholism, is not uncommonly defective, and the patient is distracted by "cobwebs" and "muggy spots," "stars," flashes of light, and suchlike. Sometimes more formidable symptoms develop, and eerie visions of half-discerned forms and faces flit now and again in the unfortunate man's neighbourhood, most often when he is alone in the gloaming, or on a solitary railway-journey, or in the state betwixt waking and sleeping. The auditory sense is similarly disturbed. Whistling monotones, the chime of half-heard bells, booming as of a resonating gas-globe, singing, buzzing, humming, and even articulate voices, may be created in his ear, and these, like the minor hallucinations of sight, are apt to be unpleasant, sometimes terrifying. Perversions of taste and smell are not so common nor so oppressive.

Muscular sense is also impaired, as in intoxication, so that the patient is misinformed as to

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country, and depends on impurities in the liquors used. See also Magnan on Absinthism. The practical importance of fits consists in the tendency to violence in the post-epileptic state.

his exact attitude, the position of the limbs, and the direction and extent of movement. The skin-senses are also invaded, but the impairments may not bulk so largely in the patient's consciousness. The most common are a loss of accurate touch-sense, numbness, tingling, feelings of "needles and pins," sensations of cold, and hot flushings.[1] In alcoholic paralysis proper, a condition due to inflammatory changes in the nerves, there is a group of such sensori-motor symptoms—tenderness over the nerve-endings in the skin, loss of muscular power, pain, fatigue, and dulled touch-sense.

The impairments in the realm of the nutritive processes are generally associated with morbid changes in viscera outside of the nervous system; and the general health of the patient at this stage is so bad that he needs a physician's care. The most important of the nutritive defects is an impairment of recuperative energy ; the healing processes are ill-performed. Every physician knows that the dangers of a pneumonia are enormously increased if the patient be alcoholic ; and surgeons tell us that in the drunkard

[1] Krafft-Ebing points out that these occur most frequently in the lower limbs.

the most simple wounds are apt to "go wrong" and heal slowly, and that fractured bones make a bad union. Almost invariably there is defect of sleep, a recuperative function most vital in its effects, and yet having strangely direct and intimate connections with the mental processes. Insomnia is apt to be both an early and persistent symptom. The sleep may be postponed till a late hour, and yet be deep and refreshing when it comes; or there may be night-long wakefulness with snatches of broken slumber, or exciting dreams and terrifying nightmares and startled awakings. Obesity or emaciation may occur, according to the constitution and liquor-habit of the patient; the heart may be "hurried" or irregular and weak in its action, and faintness or even fatal syncope ensue; there are changes in the distribution of the blood to the various organs, notably in the complexion. These and kindred symptoms evidence the depth to which the process of dissolution has gone, and its encroachment on the deep-buried centres of life.

DRUNKENNESS AND INSANITY.

Drunkenness and insanity have an intimate

though many-sided relation. In the "pedigree of disease," in family records, and in the life-history of the individual, they interchange and react on each other like inseparable twin-diseases, and bear a strong family resemblance in many of their features.

As a *symptom* of insanity, drunkenness is very common, and always will be, so long as social conditions favour that form of imperfect control. I have spoken already of a very limited class in whom the acquisition of the habit implies a native imperfection of inhibition, and an innate weakness of the will for good, which signify a condition of moral imbecility. And there are other weak-minded persons, mild imbeciles of the ordinary class, who drink to excess out of sheer silliness rather than from constitutional moral insanity. The more usual forms of insanity, disorders acquired later in life, are often characterised, especially in the early stages, by a tendency to alcoholic excess. Notably is this the case in general paralysis (of the insane)—"the disease of the nineteenth century"—which is quite unknown in many primitive communities, and is supposed to be the especial product of the vices

and complications of city life. This disease, like alcoholism itself, is essentially a progressive dissolution from above downwards, and in the moral lapses of its early stages excessive drinking is a common occurrence. Similarly in nearly all the known forms of insanity drunkenness may evidence a failing self-control.

In the year 1890 the facts showing the importance of drunkenness as a *cause* of insanity were so conclusive, that Dr. Clouston devoted a large part of the Royal Edinburgh Asylum Report to their consideration. He says:—"Taking the admissions to the West House alone—that is working people chiefly—and confining the inquiry to men between twenty-five and sixty, the chief wage-earning period of life, I find that 53 of the total of 124, or 42·7 per cent., were of those in which alcoholic excess was assigned as the predisposing or exciting cause. . . . Alcoholic excess is the most frequent single exciting cause of mental disease, and it acts also as a predisposing cause in very many cases. During the past fifteen years we have had 837 admissions in whom drink has been

put down as the cause, or 16·4 per cent. of all our admissions during that time. This may be taken as about the general experience of the country." As showing the importance of drunkenness in the ancestral descent of imbecility and idiocy, I take the following quotation from Dr. Strahan's "Marriage and Disease":—"Dr. Howe, upon careful investigation, found that 50 per cent. of all the idiots in the State of Massachusetts examined by him were the children of intemperate parents. Dr. Fletcher Beach sets down drunkenness, either alone or associated with some other obliquity of nature, as the cause of 25 per cent. of all the idiocy received into the Darenth Asylum, and with this estimate almost every other observer agrees."

That the physiological transgressions of the parent should initiate organic degenerations in his family, whose impairments tend to eliminate his offspring from the sphere of active life and terminate the tainted stock, is a natural law in which there is much obvious good. But it must not be forgotten that, in the intermediate stages of the process, the results of intemperance include a

series of constitutional imperfections in posterity, far short of anything of which the law takes cognisance, but none the less fatal to sound conceptions of life and duty, and incompatible with right conduct and good citizenship.

FORMS OF ALCOHOLIC INSANITY.

At the risk of obtruding matters of interest merely to the specialist, I venture to include in this section a short reference to the particular forms of insanity which alcoholic patients most commonly affect. Of these, *delirium tremens* is the form with which the average observer is most familiar. As a rule sudden in its onset, exciting while it lasts, and short in its duration, it is the most impressive and dramatic of the alcoholic neuroses. It is sometimes alleged that this condition is induced by an unwonted abstinence from drinking. It is much more true to say that some warning of impending calamity suggested the abstinence; that the relation is that of a *post hoc*, not a *propter hoc;* and that, but for the abstinence, the attack would

have been earlier, the symptoms aggravated. Including, as it does, a considerable rise in temperature, more or less prostration, some heart affection, and a danger of violence, a physician should always be called upon to undertake the responsibilities of such an illness. A diet that is not stimulating given at short intervals, mild exercise, plenty fresh air, and if possible much sleep—these are the essentials of treatment for the lay-physician to practise. Above all, do not administer stimulants except under the direction of a physician, and do not leave the patient far from observation.

Mania a potu or *Delirum Inebriosum* is another acute form of alcoholic insanity, sometimes confounded with *delirium tremens*, but in this country regarded as a distinct affection. The conspicuous symptom is violence; the chief dangers, exhaustion and injury. It is most liable to occur in very "neurotic" subjects, on whom alcohol has the effect of an active cerebral poison. Dr. Clouston compares it to a prolongation and exaggeration of wild drunkenness that occurs in people who are said not to carry their liquor well. A few

glasses of spirits make them riotous and unmanageable, and often quite delirious, unconscious and violent. The duration is uncertain, and asylum treatment is frequently necessary.

Chronic Alcoholism proper frequently occurs in persons who have not often drunk so as to be intoxicated, but are none the less habitual "soakers." We have already considered the more important symptoms as due to progressive alcoholic dissolution on the three levels. The commonest types are the amnesic, the delusional, and the emotional. In the amnesic cases forgetfulness is the most prominent symptom, the defects of memory being, as a rule, most noticeable in regard to recent events, and, associated with that, there is usually well-marked impairment of "orientation," leading to mistakes in identity of time, place, and person. In the delusional type, errors of judgment are conspicuous, and those most commonly met with are delusions of suspicion, of persecution, and of exaggerated self-importance.[1] The emotional cases may be

[1] Krafft-Ebing finds delusions of infidelity of the consort, in married patients, almost exclusively characteristic of chronic alcoholism, very rarely absent in advanced cases, and very difficult of correction. It has not been found so in this country.

either exalted or depressed; sometimes these states alternate. These types are not exclusive; some cases combine all three sets of symptoms. Others affect a less specialised form of affection, best described as an all-round loss of self-control. In nearly all, there are well-marked motor and sensory impairments, nutritional defects, and morbid affections of non-nervous systems.

Dipsomania is a disease in which there is an unhealthy brain-condition, marked by defective inhibition and by an abnormal reaction to alcoholic stimulants. Psychologically, the condition may be described as a strong craving for alcohol associated with diminished self-control. The disease is very closely allied to ordinary drunkenness. Very similar hereditary and individual factors constitute the chief elements in their causation; and the treatment is practically the same for both. We shall, therefore, content ourselves at this stage with a classification of the various forms of dipsomania as adopted by Dr. Clouston.

1. Dipsomania related to the developmental and retrogressive crises such as adolescence—

the stage between the ages of 15 and 25—and the climacteric or "change of life."

2. Dipsomania in persons who inherit a brain tending to functional disease such as insanity.

3. Dipsomania following gross injuries such as a blow on the head or sunstroke.

4. The dipsomania developing from excess in drinking.

Alcoholic Dementia is the necessary termination of all these various conditions, unless a cure be effected, or death supervene. Dementia is the scientific name for mindlessness brought about by gradual reductions in mental function. The condition frequently occurs in incurable mental diseases, and in the last stages of extreme senility. One by one the mental functions are obliterated until the patient is reduced to a vegetative existence. In most of the alcoholic cases, dementia ensues gradually as the last stage of the process we have considered under the name of alcoholism; in the more acute forms, it may come on quickly; sometimes it occurs as a premature senility in men who have drunk to excess in early life,

even though they may have been temperate for years.

. . . . . .

To repeat then, drunkenness is a neurosis, and takes its place in the family tree of diseases alongside of insanity, epilepsy, and the like. It may crop up here and there in a family in whose members there are many neuropathic disorders ; or it may be the first evidence of a tainted stock, and initiate a series of gross pathological conditions in the individual and in the family ; or it may be simply what many people consider all drunkenness to be—a culpable failure on the part of an ordinary individual to conduct himself, and control his desires, in accordance with the ethical standard of his time. But, whatever be its origin, and whatever its relationships, drunkenness is on the way to mental death ; and, unless a stronger factor intervene to check the process, or a fortuitous illness anticipate the end, the drunkard and his seed after him are moribund.

CHAPTER III.

Etiology.

The causation of drunkenness may be best considered as *organic* and *environmental*. In other words, the causes of the vice may be comprised under two headings—thirst, and its opportunity. And it is well to bear in mind that there are these two factors, so that suitable remedial measures may be devised for each.

In this country at least, much of the blame of drunken habits may justly be laid upon the environment, for the facilities for excessive indulgence are remarkably complete. The old-fashioned view that regarded hospitality as imperfect unless a friendly glass had been partaken of, and the prevailing opinion that sobriety was a weakness; the number and attractiveness of public-houses; the childish custom of "standing drinks" on the most irrelevant pretext; the infamous practice amongst employers of paying wages to their

labourers in the proximity of a bar; the luxury of modern drinks; the historic association of good wine and good company, and the tendency to dulness which is apt to characterise "tee-total" assemblages—these and like social conditions constitute the environmental causes of drunkenness. For the excess of public-houses, and others of the more glaring defects, we have some promise of an active remedy. The rest may be allowed to die a natural death. We may be expected to grow out of them, when we arrive at years of discretion, in the good time that is to come, when men's tastes will be simple and the conditions of labour less brutalising, when work will not be dreary, and poverty not squalid.

In the meantime the organic causes of drunkenness—the subjective conditions which make for thirst—are worthy of the fullest consideration, because the general public know so little of them, and because they can be to a large extent foreseen and modified. We shall follow the physician's method, and consider them under two headings: predisposing conditions, and exciting causes.

PREDISPOSITION TO ALCOHOLISM.

Every human constitution has an inborn bias towards some form of ill-health. Favourable conditions may prevent the development of the actual malady, but the potentiality is present in every case. This proclivity towards a special disease is called the *diathesis.* For example, we speak of a gouty or of a consumptive diathesis, and predispositions to certain forms of nervous disease constitute the insane, the epileptic, or the alcoholic diathesis. There are some brains so constituted as to react to alcohol to an unusual degree. In their case there is an exaggeration of the affinity between alcohol and the nervous system, and, if a defective inhibition accompanies the increased susceptibility to the action of the stimulant, the alcoholic habit is readily acquired and alcoholic dissolution easily induced. Now this potentiality marks a bad quality of brain. It indicates want of balance and of stability in nervous organisation, and it is a step on the way to elimination. If favourable conditions do not check the tendency, a generation or two will see the end of the stock.

Fortunately there are generally well-marked peculiarities which characterise individuals possessed of brains so predisposed. In the first place, there is frequently an unusual love of alcoholic intoxication, and, indeed, of all forms of excitement. Such people have an unusually strong desire for cerebral stimulation, for some pleasurable outlet for their ill-regulated energy, and an unusual impatience with uneventful routine. Associated with these, there is frequently a well-marked capacity for intense feeling and for deep absorption in the interest of the moment. But obviously these characteristics are only of importance when considerably above the average, and when they are associated with a deficiency of other qualities which act as a check on this tendency to alcoholic enjoyment.

The second sign of alcoholic predisposition is a palate which appreciates the first taste of alcoholic liquors. To the normal child spirituous drinks are distasteful, and in many men also a taste even for good wine requires an education. But there are some children who take to alcohol from the first, perhaps when it is medically prescribed, and such a result always demands care and watchfulness.

The third characteristic of the kind of brain in question is a liability to be affected by small doses of the stimulant. This is normal in children and females who are of a comparatively delicate nervous organisation; but there are some children in whom this peculiarity is more distinctly marked, and who manifest it even in adult life. The term "small dose" is of course a relative one, and it is only when the idiosyncracy is unusually pronounced that it is of importance. The same homœopathic proclivity may be observed in relation to other drugs besides alcohol.

The next sign is one of much more importance, though it is frequently overlooked. We have already referred to a mode of nervous action which is called explosive or fulminating. This quality predisposes men to spasmodic and impetuous conduct, inappropriate to the circumstances out of which their actions arise. It is manifested frequently in the matter of drinking. I have known men suddenly and impulsively indulge in a bout of drunkenness without any warning either to themselves or their friends, without any appreciable occasion for it, without a conscious desire to be intoxi-

cated, and with an unprecedented disregard of consequences. The idea is unaccountably suggested to their minds, and is followed out without much question, very much in the same way as a man blindly acts on an instinct. Such paroxysmal conduct is apt to be periodic in its recurrence, and demonstrates the relationship between such constitutions and those of epilepsy and impulsive insanity.

Lastly, there is often observed an unusual order in the development of the symptoms of intoxication. Leaving out of account the minor discrepancies dependent on the personal equation, we have seen that the ordinary development of intoxication is of a compound order, and includes motor as well as mental symptoms. The normal consequence of continued indulgence in alcoholic stimulants, is that a man should become "drunk and incapable," harmless and helpless. In some men, however, it may be a long time before intoxication goes far enough to make them incapable; they tend rather to be "drunk and disorderly," excited, outrageous, and violent; in other cases intoxication may not, for some time, go deeper than the emotional stage, leaving the drunkard

quarrelsome, affectionate, or lachrymose ; or it may only lead to the trance-state or to continued stupidity and apathy. Such unrelated symptoms—conspicuous impairment of the mental functions, and relative integrity of the motor level—contraindicate the free use of alcohol.

To tnese signs of predisposition to alcoholism we may add an extreme difficulty in keeping within physiological limits in the use of stimulants—a defect of inhibition. Fortunately, a very large number of men are physically incapable of continued excess. Normally, with alcohol as with other things, excess creates a strong feeling of repulsion. In some cases the general discomfort attending intoxication is extreme; sometimes the slightest excess produces violent sickness ; very often the day following a liberal indulgence brings with it something like loathing for the stimulant. In any case, other considerations effectually control alcoholic desire in the minds of well-constituted men. But, in individuals of the type which we have been considering, self-control is apt to be notably defective, so that, to borrow a suggestive figure, not only are the horses wild but the driver is incapable.

CONDITIONS PREDISPOSING TO ALCOHOLISM.

We now come to the important question: In what brains does alcoholic predisposition arise? In what class of persons do we find an abnormal susceptibility to the destructive effects of alcohol? We shall consider these predisposing conditions under seven classes, admitting that though sufficiently exhaustive the classification is to some extent a cross-division.

1. *Alcoholic or other Vicious Inheritance.*

The heredity of drunkenness requires reconsideration under the fresh light thrown on the subject by Weismann's theory. We had been in the habit of believing that every new function and mechanism acquired by a human organism produced some definite change in the reproductive elements, whereby, to a certain extent, the acquisition was passed on to the offspring. According to Weismann, the elementary mechanism of reproduction is all but independent of environment, and uninfluenced by changes initiated during the life of the individual. Acquired conditions, therefore, morbid or otherwise, cannot be transmitted to posterity.

The peculiar nervous organisation, favourable to the acquisition of a particular character, is all that can be transmitted; the force of circumstances does the rest. This theory does not of course alter the facts. It is still true that drunkenness runs in families, as other habits and vices do. It is still true that men are apt to believe what their fathers believed, to desire what they desired, to fail where they failed. The explanation of the facts is all that Weismann can dispute. If his doctrines be correct, drunkenness in the parent can make no difference to the moral character of the offspring through the direct influence of organic inheritance.

A proclivity towards drunkenness may be initiated in a family as the result of the blending of unsuitable maternal and paternal tendencies, although both parents may have been free from the vice. Or, if one of the parents have a nervous system of peculiar alcoholic susceptibilities, the taint will be transmitted unless it be more than counterbalanced by the prepotent character of the other parent. And if both parents be victims of alcoholism, the evil potentiality will most likely be exagger-

ated in the children, or will result in some more pronounced morbid condition.

When the confusion of criticism has cleared away, and we take possession of what is true in Weismann's theory of heredity, it will, I believe, be admitted that we have hitherto egregiously failed to estimate the real importance of the environmental factor in development. Given a child of an unstable nervous system which he has inherited, with all its susceptibilities, from an alcoholic parent, it only requires an environment which does not essentially provide against temptations to drinking, in order to develop the vicious potentiality. The influence of parental personality is much the most important environmental factor in moulding character, not only because bad family arrangements and habits give sanction and opportunity to the indulgence of vicious propensities in the children, but because the whole bearing and habits of mind of the parents unconsciously furnish just the kind of moral environment calculated to foster in the child the very tendencies requiring to be checked. And so environment perpetuates hereditary vicious taints.

Such a result is exemplified in the following

case which I quote in full from a paper by Dr. Clouston, entitled "Diseased Cravings and Paralysed Control." It also affords an interesting illustration of some of the characteristics of children predisposed to alcoholism.

"A. B., aged 12, was seen by me on account of the following symptoms. His mother was a very unstable woman, and the father drank hard, and came of a drunken family. The child had been slightly peculiar, impulsive and difficult to manage from a baby. He had been taught the ordinary branches at school, and could read and write, but was backward somewhat. Especially he had no depth of moral nature or resistive volition. The body was large enough, but the movements were not so quick or so fully co-ordinated as to be graceful. The head was badly shaped, the palate arch very high, and the eyes restless. It was difficult to fix his attention for any time on anything, and he was a good deal of an automaton mentally, but anything like idiocy or congenital imbecility had never been thought of. About a year before I saw him some whisky had been given him [*i.e.*, when 11 years old], it was not known exactly how, but ever since that first

taste the craving for it had been present. He stuck at nothing to gratify it. Lying and stealing he would practice at any time to get a little of the coveted stimulant. He invented wonderful stories of illness at home, for which whisky was needed at once, messages from his mother to the family tradesmen, etc. He was plausible in excuses and prevarications when charged with the offences of which he had been guilty. The first taste of whisky he had got seemed to have found a brain most sensitive to its evil influence, and from that time dominated it as if a glamour had been cast over the child—for child he was in reality. He was in fact a very mild imbecile with the special quality of whisky craving. What could I do in such a case? Nothing that I know of but send him, as I did, to a far-off manse in a solitary country place, to be under the care of a sensible, firm couple, who for the sake of an addition to their income took this precocious congenital dipsomaniac into their home, and did their best to look after him and to get him interested in the work of the glebe. Fortunately, such children are uncommon."

Other cases might be quoted showing even

more conclusively the importance of an alcoholic heredity, but the fact is so universally admitted that it seems unnecessary to multiply instances. A late observer—Dr. Thomson of Perth prison—inquired into the history of the children of 10 dipsomaniacs. In these families it was acknowledged that there were 19 drunkards then living, and 18 dead. In other words, in the families of these 10 dipsomaniacs there were on an average 3·7 members in each who became drunkards. Other cases advanced in a different connection will be found to illustrate this principle.

Drunkenness is not the only vice which is apt to beget the alcoholic tendency. In cases in which a vicious life is the outcome of a kind of moral imbecility, the nervous defect may manifest itself in subsequent generations in various forms, and frequently in constitutional dipsomania. Drunkenness may therefore be expected in children of the prostitute class and of habitual criminals. Such persons persistently ignore the altruistic claim in life, they lower their vitality by subjecting it to severe and constant stresses, and they furnish the additional factor for the

development of drunkenness by surrounding their offspring with a vicious moral environment.

2. *The Neuropathic Diathesis.*

We must hasten to explain this formidable title. Diathesis, as we have seen, merely means constitution regarded with a view to its inborn proclivity to disease. The neuropathic diathesis carries with it a proneness to disorders of the nervous system. As already stated, drunkenness becomes after a time a form of nervous disorder called alcoholism. The impairments in the nervous system are demonstrable under the microscope in all but the very early stages, although we have not yet learned to correlate these in detail to the defects in cerebral function which they no doubt induce. The symptoms we have already reviewed under the head of alcoholic dissolution. Alcoholism may be induced in any human organism which is subjected to a habitual excess of the stimulant. But the characteristic impairments are more rapidly developed in persons of a neurotic constitution. And further, our present point is

that neurotic persons of a certain class are particularly apt to subject themselves to this unphysiological stress.

The most important instance of the result of the neuropathic predisposition in producing drunkenness is afforded by the class of constitutional dipsomaniacs. These patients seem to have something like an instinct for drunkenness. If alcohol be within their reach they will drink it to the death, disregarding all prudential considerations, apathetic to any moral interests, and careless even of bodily necessities. There are, it seems to me, two distinct groups of such cases, merging into each other without a definite border line, but exhibiting in the main essentially different manifestations of the neurotic defect. To the first group the "paroxysmal" drunkard belongs. His dipsomania is an intermittent neurosis, recurring with some sort of periodicity, and leaving him intervals of comparative immunity to be devoted to repentance and recuperation. The important characteristic in such a case is the "fulminating" or explosive mode of mental action which we have already considered. The patient may be

intelligent and even gifted, sometimes a genius, not devoid of moral sentiment, impulsive, but capable both of serious effort and of intense feeling. But when the fit is on him everything else is thrown to the winds, and he indulges in unaccountable, irresistible, and regardless drunkenness like the veriest sot. There can be no doubt that in cases of this class we have to do with some organic cerebral defect closely allied to epilepsy.

The second group of constitutional dipsomaniacs includes the moral imbecile with a taste for alcohol. A. B., quoted in the preceding section from Dr. Clouston, seems to be a case in point. From the first there is noticeable a lack of moral interests, a failure to appreciate altruistic motives, a remarkably imperfect development of self-control, a dislike to persistent effort, an inability to sacrifice his own pleasure, an absence of anything like fine feeling, an intellectual dulness amounting sometimes to weak-mindedness, and perhaps a general awkwardness and want of finish in his movements. If a strong liking for alcohol be added, and the opportunity for its indulgence exist, we have here the makings of a habitual drunkard not of the

paroxysmal, periodic sort, but of the kind which grows into the stupid, everlasting "soaker."

Now, such cases belong to the neuropathic class. Sometimes they initiate nervous disorders in the family. The parents may have been healthy and moral, but in some obscure way ill-matched physically, so that the blending of the maternal and paternal tendencies has this disastrous result. More often this kind of constitution arises in a family in which there are already many instances of nervous weakness.

The case of the "Phultain" family, which I append, illustrates this relationship of drunkenness. The occurrence of epilepsy will be observed, a disease which frequently follows alcoholism in a family.

THE "PHULTAIN" FAMILY.

Father: a drunkard.

Mother: a drunkard; has been several times insane; had a cousin an imbecile.

Children: 1. male; a drunkard; convicted of theft, and of assault.

2. male; epileptic; died in infancy.

3. male; epileptic; died in infancy.

4. male; insane.

Children: 5. female; several times insane; confirmed drunkard; convicted of theft, and of assault; married; now a prostitute.

6. male; epileptic; insane.

7. female; epileptic; dishonest; has had two illegitimate children.

3. *States of Defective Nutrition.*

Any course of life which materially lowers the vitality of the organism predisposes the subject to the evil effects of alcohol. The stresses of the present day city life are apt to tend in that direction. The condition of nervous exhaustion and prostration known to medical men as *neurasthenia* is an excellent example of the kind of result to which I refer. It is a common form of illness, especially among women. It may be brought on by any mode of life, whether well-intentioned or vicious, which habitually makes excessive demands on the nerve-energy of the patient, without providing the essential conditions for recuperation. Unhealthy occupations which necessitate sedentary habits, unsuitable diet, and an insufficiency

of fresh air, have the same tendency. The state of exhaustion following excessive overwork, whether bodily or mental, produces a like result, and the duration of the exertion need not be great if the strain has been severe. The stage of convalescence from a depressing illness, and the state of depletion of the blood-system met with in certain diseases, are of importance in this connection.[1] These conditions are often accompanied by dulness of spirits and a lack of vivacity, which make the patient resort gladly to some form of alcoholic exhilaration; and to these may be added an impairment of moral resistiveness, and an organic susceptibility to the action of the stimulant, which call for forethought and care.

4. *States of Altered Relations of the Nervous System incidental to the Reproductive Crises.*

The subject which we have now to consider is of the utmost importance in a study of the

[1] Krafft-Ebing reports the case of a locksmith, aged 36, suffering from chronic alcoholism, going on to insane wife-murder. One of his children died in convulsions. There was no hereditary history of brain-trouble. The patient was sound until an attack of typhus with pneumonia in his youth, after which he took to heavy drinking.

causation of drunkenness. These crises in the life-history of men and women which relate to the various stages in the development of the reproductive function, its activities, and its decadence, are most significant in their bearings on character and conduct. At the risk of giving a shock to undue sensitiveness, it is necessary to say a little on this subject.

There are several reproductive crises. The first occurs when the function is making its appearance; next there is the period of its development, the period of adolescence, when character is rapidly changing and permanent habits are being formed; this extends to the age of about twenty-five. Then in women there are certain periods at which important organic developments occur, as, for example, the period of pregnancy and the lactational periods. And lastly comes the climacteric, which marks in both sexes the end of adult life, and ushers in the second non-reproductive stage of existence. We do not exaggerate the importance of these periods when we call them crises. They are never unimportant, and in some cases their effects on the constitution are momentous, both physio-

logically and ethically. At any or all of these times there frequently come about changes in bodily and mental functions, which at the time appear unaccountable. The reproductive function is so essential to the race, so deeply organised in the human constitution, so intimately related to all the other functions, that the outstanding epochs in its development and decadence may entirely unhinge the normal balance of the nervous organisation, and profoundly alter the relations of the various functions. Without reference to these facts we necessarily fail to appreciate the full meaning of certain changes in character which arise especially in persons of an unstable organisation—unexpected ebullitions of ill-nature or of fruitless sentimentalism in boys, new views of life that come with advancing youth, the wane of moral enthusiasm in middle life, rejuvenescent affections in elderly men, and other more sudden and alarming developments.

Now at these crises the strain thrown on the nervous system often impairs the normal inhibition so as to exaggerate alcoholic tendencies and weaken self-control. I knew a woman who became wildly drunken with each pregnancy

I observed, and I saw her pass through several. The nursing-period also is in this respect fatal to some women, partly because their weakness seems to call for the use of stimulants, and sometimes because they are advised to act on the delusion that alcohol improves the nourishment for the child. Similarly, recurring outbursts of intemperance in women may often be found to bear a direct relation to periodic functional changes, and it is a culpable negligence that fails to provide against such a contingency. Not infrequently patients, who have exceeded in youth, but have abstained through the greater part of adult life, break down under the stress of the climacteric. But, of all these, adolescence is the most important crisis. Dr. Clouston believes that more true dipsomaniacs develop the habit of excessive drinking, and acquire a keen craving for it, between the ages of eighteen and twenty-five (towards the end of adolescence) than at any other age. I again quote an illustrative case from his article.

"B. C., the son of sensible, educated parents, but in whose mother's family there was both insanity and epilepsy. He was carefully brought up in the country, away from temptations. To

those who knew him intimately he had certain mental peculiarities. He was untruthful, if telling the truth meant risk; he was vain, and had no power of self-denial, wanting in a high sense of duty, and mean. But he was educated for a profession, and developed no drinking tendencies till he went to a university town to live in lodgings during his education. Within two years, and before he was nineteen, he was found to be a confirmed and uncontrolled drunkard, utterly lost to affection and honour, indescribably untruthful, vicious with women, and a useless burden on society, which he remained till his death, ten years afterwards. From the time he got to like drink, he showed no redeeming point, no *let up* at any time, no trace of control over his craving, and no single point in his mental and moral nature that could be got hold of to apply any kind of motive to. I was satisfied, from a careful study of the case, that he was quite irresponsible and hopeless in the condition of modern society, and in the present state of the law. It was not a long course of nerve degeneration caused by years of drink-soaking, but a sudden destruction of inhibition by a few months drinking in the case of a brain

that was innately weak in inhibitory qualities, and so unstable that it was soon entirely overset."

5. *States of Mental Disturbance due to Nervous Lesions—Epilepsy, Insanity, Head Injuries, Sunstroke, Influenza, etc.*

The close resemblance between epilepsy and constitutional dipsomania has been referred to. As a rule, epileptics are of a pious turn of mind though impulsive; but they are irresponsible beings, with a morbid defect of self-control. The weak-mindedness which they acquire may manifest itself in a habitual excess of alcoholic indulgence, or a bout of paroxysmal drunkenness may be substituted for an epileptic attack. As to insanity, we have already devoted sufficient space to its consideration as a factor in drunkenness. Drinking may characterise the early stages of nearly all the forms of mental illness. Or, if an acute attack of insanity be recovered from, the resultant weak-mindedness may leave the patient a prey to alcoholic temptation. Sunstroke is rare in this country, but I have known more than one

patient who took to drinking in a condition of ill-health following prolonged exertion in a high temperature. The importance of head injuries is too frequently forgotten. Many cases of unaccountable drunkenness have been finally attributed to this cause, and scientific observers regard it as frequently of supreme importance. Influenza has the same unfortunate distinction. Scientific opinion regards it as essentially an affection of the nervous system, and it is on record that drunkenness has been observed as one of the results of incomplete convalescence from the depression of nervous functions which usually characterises an attack of this malady.

6. *States of Defective Inhibition due to Previous Alcoholic Excess.*

The importance of previous excess as a cause of drunkenness is universally admitted. As a rule the whole explanation is supposed to be found in a reference to the force of habit. But it is not only that it is easier to do what has been done fifty times before. Alcoholic excess interferes with the normal activity of

the brain-cells, modifies nervous relations, and impairs inhibition, thereby inducing the quality of brain which makes for drunkenness. And even if alcohol be abstained from, certain habits of mind attest the damage done, and more particularly a proneness towards uncontrolled indulgence in other vices is commonly brought on.

Magnan, an eminent French authority, mentions an illustrative case. The patient came of a neuropathic stock, and began drinking when about twelve years old. In him, the mental symptoms always predominated over the motor, and, at his worst, included unpleasant hallucinations, and a delusional sense of persecution. He was treated in a hospital or asylum nine times in eight years for a form of *delirium tremens.* Latterly there was no resistance to alcoholic temptation left, and he returned to drinking immediately on his discharge from hospital. But the resistiveness of his brain to the effects of alcohol also became enormously reduced, so that an extremely small quantity was sufficient to produce his old symptoms. Finally, the hallucinations first induced by excessive drinking sometimes re-

curred under the strain of febrile illness or intense excitement. Such a case is unusually interesting, as showing that, in certain subjects, there is a stage reached, which forms an exception to the rule that the system becomes habituated to the use of the stimulant and requires larger and larger doses to produce its physiological effect. Krafft-Ebing lays much stress on this point.

This modification of the sensitiveness of the brain to alcohol may persist for an indefinite period after the tippling habits have been relinquished. Such permanent impairments are especially liable to follow youthful excess. This was exemplified in a case that came under my notice in the country. The patient was a man who had indulged in alcohol to a great extent in his youth. By some means or other he gave up the habit, and after that lived a long and useful life. When I knew him he was an elderly man—I should say about sixty—with a venerable appearance, and a character that won him great respect. He was a fairly successful and upright tradesman in the village in which he lived, and had not tasted alcohol for, I think, about twenty-five years. One night, at

a wedding in a friend's house, he was persuaded to take drink. The alcohol affected him in a very unusual degree, and in a few weeks he died after an attack of some alcoholic trouble—probably *delirium tremens.* Dr. Clum quotes a similar case from Dr. Crothers: "Judge Raymond, when at thirty, was a confirmed inebriate, and given up by his friends. All unexpectedly, he resolved not to use alcohol again until he was seventy years old. From this time on he was a strict temperance man, and finally became a judge, and was a very eminent and exemplary man. On the morning of his seventieth birthday he became very much intoxicated, and died two years later of *delirium tremens*, having drank in the meantime almost constantly."

7. *Youth and the Female Sex.*

On this subject little need be said. The years of adolescence, when the brain is still undeveloped and all the organs and functions imperfectly consolidated, manifest a delicacy of nervous organisation comparable to that of the female, and far different from the resistive and stable qualities which pertain to the full vigour

of adult manhood. If drunkenness is comparatively rare in youths and females, it is not because they are not susceptible to the effects of alcohol, but rather that the customs and barriers of society give them an advantage in the struggle and make indulgence comparatively difficult.

It only remains to be added that none of these predisposing conditions occur singly in individual cases. In any one case a complexity of causes will be found to contribute towards alcoholic predisposition. Moreover, new etiological factors are still being discovered, and we are very far from being able to apportion to each its true value. Every case requires much individual consideration, and if proper inquiries be made it will often be found that some unsuspected predisposing condition exists which may be obviated with great benefit. The age of the patient, in the first place, should always be taken into account, and the general trend of his development in recent years; then the possibility of a constant drain on the system from ill-health must be eliminated—a predisposing condition which is very common, especially in women, and one which is almost

constantly overlooked. Similarly the mode of onset of the habit, and the outstanding incidents of the patient's career about that time, may be of importance, though not so much in suggesting appropriate treatment as in influencing opinion as to the curability of the case. In short, the nature and the cause of the drunkenness of each patient should be scientifically investigated with the same care and precision as is given in the case of acute bodily illnesses.

THE EXCITING CAUSE.

Given the opportunity and the predisposition, the one exciting cause of drunkenness is thirst. But, in order to exhaust all the various forms, we must understand "thirst" to include any manner of desire for drink. Now there is a physiological thirst and a pathological; and there is physiological and pathological drinking. Normal thirst is the effect of a physiological necessity on the attention of the subject. The organism requires liquid, and the organic want expresses itself in a conscious desire for a drink. Such a desire may be satisfied by a mildly alcoholic beverage. If we only drank

when we were thirsty in this sense, alcoholism would be unknown. The harvester's noonday mug of ale, like a moderate supply of champagne after dancing, may be voted harmless in itself. And further, a thirst which is a recognised desire for mild alcoholic exhilaration may be physiological too, and deliberate and careful indulgence with a view to its satisfaction need be neither harmful nor dangerous. The wearied labourer may find the springs of life run low, and may cheer himself with a moderate evening glass, and nobody need be the worse for it; and the brain worker may be excused if, on an occasion, he borrows a little help from alcohol to enliven his hours of recreation, to awaken his sleepy wit, or to brighten a cheerless meal. The pathology of such drinking only appears when some considerable reactionary effect has been induced by indiscretion.

Unfortunately the limitation of our drinking habits to such physiological bounds requires a standard of self-control to which a large section of the community has not as yet been educated. The kinds of thirst felt by those who exceed physiological limits we shall consider under

three headings: the organic craving, the craving of habitual excess, and misinterpreted cravings.

The organic craving for alcohol is a morbid product of the peculiar kind of nervous organisation which we have considered as innately predisposed to alcoholism. In an unpublished paper on "Alcohol and Inhibition," Dr. Clouston says: "A desire, or in its stronger degree, a craving, in a healthy organism, represents an advantage or a necessity for the individual or the race . . . it is a revelation to consciousness of the needs of the organism, and its gratification is the fulfilment of an organic law. The kind and the strength of the craving become a test of health. If a craving arises whose gratification leads to hurt, it is a proof that something is wrong with the organism." The form of craving now under consideration represents a constitutional exaggeration of the "affinity" between the brain-cells and alcohol, and an abnormal love of alcoholic intoxication. Dr. Crothers (quoted by Dr. Clum), speaks of a "distinct morbid impulse that grows into a literal mania, a psychical condition of the mind

in which alcohol is demanded with the same urgency that water is craved by the body after being deprived of it for a long time; truly a thirst-mania which becomes the central thought and impulse of the organism." This craving, as we have seen, is often of a periodic and paroxysmal nature, unaccountable and irresistible. The potentiality for it is common enough, but it is often pled as excuse for many drunkards who have never really experienced it.

The craving of habitual excess is as common as drunkenness. That is to say, habitual drunkenness induces a condition in which abstinence means discomfort, and an opportunity is always a suggestion. The drunkard is like the faddist—an automatic machine, whose whole mental life revolves round one centre. Whether he will or no, the desire to which he has habitually given precedence gradually asserts an autocratic rule over all the others; all his views of life have some reference to it; all his acts of choice are in some measure determined by it. In the chapter on physiology we have referred to the law of development, whereby the repetition of any pro-

cess in which we find interest and pleasure tends to become less and less voluntary, until finally the nervous mechanism representing it performs the operation for us independently of the will, whenever the appropriate stimulus is applied. If the manner of conduct be one with widespread relations, capable of being instituted on very various occasions and in response to many kinds of stimuli, the mastery it acquires, at first deliberately granted, becomes an involuntary process of inhibition, which reduces the other interests to an abnormal state of abeyance. The nervous mechanism becomes set in a deeply-organised groove, so that the indulgence in question seems to become normal to the individual, and abstinence demands a readjustment of the mechanism of conduct which is attended with discomfort and sometimes with distress. Even the element of desire may sink out of sight and the habit be followed on a wholly irrelevant pretext without the concurrence of the will. Many drunkards will tell you that they are rarely conscious of a desire for alcohol; that the sight of a boon companion sends the hand straight to the pocket; that "how do you do?" is synonymous with "what

will you have to drink?"; that there is an unaccountable uneasiness in passing a public-house; that going to bed without a "night-cap" would seem as unnatural and uncomfortable as going to bed with one's boots on. In short, the craving of the automatic drunkard is an expression in consciousness, not of alcoholic desire, but of the force of habit.

In the consideration of the subject of misinterpreted cravings will be found many suggestions of an answer to the question as to how men begin to be drunkards. Many mental and physical wants may reveal themselves to the self-conscious man. If he be impetuous and unthinking, if his imagination and reasoning faculty be dull, or if desire lend bias to his judgment, these cravings may be misinterpreted into a desire for drink. Of the many examples which suggest themselves, a consideration of three will suffice. Firstly, there is the gastric craving, which is referable in many cases to the ill effects of alcohol upon the stomach-wall, and often is aggravated by insufficient or unsuitable diet. All our trophic functions, of which digestion is one, ought to be beneath our consciousness. In perfect

health a man is not conscious of the process of digestion. But when the stomach is irritable and digestion impaired, a gastric sensation forces itself on consciousness. The organic need, in the drunkard's case, is for the nourishment of a careful diet, and for a rest from the irritation of alcohol. But, if alcohol be resorted to, the sensation is dispelled and the drunkard has a sense of organic comfort. Of course the supposed cure only aggravates the condition in the long-run, but repeated indulgences may suppress the sense of discomfort, and so the misinterpretation gains sanction. Preparations including such drugs as capsicum, and the morning glass of aerated water, may serve the purpose of allaying this craving. Secondly, a social want is often misinterpreted. This is especially the case with the labouring class whose conditions do not meet their social requirements. Ancestral habit has made man gregarious and sociable, but the life of the labourer does not help him to realise this side of his character. He seldom shares ideas and ambitions with his fellows, seldom comes into living contact with kindred spirits that will help him to forget himself and to rise above the

hum-drum actual. Once more the social need becomes a vague feeling of desire, but once more the desire is misinterpreted, and he forgets himself and for the moment rises into the ideal by the means that lie nearest to his hand, that is, whisky. Thirdly, a need for the conditions of recuperation may be misread so as to mean alcohol. The brain worker is specially liable to this mistake. The unhealthy conditions of professional life, the prolonged effort, the sedentary habit, create an organic need for recreation and exercise and fresh air. But failing these, alcohol will supply the sensation of organic satisfaction, and so the habit is acquired, not only denying to the organism the necessary conditions of recuperation, but hampering it by the gratuitous addition of another source of nerve waste.

CHAPTER IV.

Therapeutics.

The subject upon which we enter is assuredly not inspiriting. The measure of the task before us is the measure of a nation's degradation. Hitherto the cure of national drunkenness has been more than many of the wisest and ablest have hoped to compass; and now many good men, perplexed and disheartened, are constrained to stand by and wait. On the other hand, there are some whose faith in this or that measure is supreme, and who are impatient of delay; but for the most part their faith is ignorant and their impatience unjust. Can anything new be said then, or anything useful? Are we right in being so anxious over it, or would we be wiser to attend to other matters and leave this problem to solve itself? If alcohol were banished from the kingdom tomorrow, would the nation be morally more

robust, or would the conditions which make for drunkenness only produce new forms of degradation?

TREATMENT OF THE ALCOHOLIC PREDISPOSITION.

This last question appeals particularly to the physician, who feels that in suppressing drunkenness by coercion he is merely treating a symptom and not the essential malady. The first branch of the therapeutics of drunkenness, therefore, which demands our attention, is the preventive treatment to be applied to those who are constitutionally prone to the alcoholic habit.

There is a large demand for therapeutics of this kind. Never a day passes in the practice of a physician who specialises in nervous and mental diseases, that does not bring before him one or more cases of serious illness that might have been prevented by judicious treatment in childhood. Most commonly the physician is consulted for "nervousness" or hysteria; but on every hand one may see men and women growing up to be moral failures, and sometimes living lives of habitual vice, who, under proper conditions, might have developed into useful

members of society. And the physician's grievance is that the complacent public attribute such infirmities to some kind of "original" sinfulness in the child, for which no common-sense remedy is of any avail; while he knows very well that the evil propensity might have been checked but for the culpable ignorance and negligence of the parents, who push their children to the utmost of their strength, preferring successes at school to bodily health, and filling up life with conventional observances to the neglect of the physical conditions of happiness. The great difficulty is, firstly, that the lay mind is reluctant to refer moral effects to physical causes; in the second place, that men, and, still more, women, fight shy of acknowledging an inborn evil propensity in their children, perhaps because that seems to indicate some constitutional defect in themselves; and, finally, the average parent is by nature unobservant and lazy and careless in matters of this sort. Perhaps physicians are themselves to blame, because they have been slow to popularise their medical learning, and especially because they have been naturally reluctant to communicate results of observations on

character which might seem to start difficult ethical problems. Fortunately the physiology of ethics is now a fashionable subject; the science of public health is in the ascendant; the sphere of practical sociology is being leavened by the gospel of fresh air and fatness; and medical men are being more and more consulted on the subject of education. Such an opportunity seems to justify a chapter on therapeutics.

Suppose a child is brought to us, born in a family of drunkards, or inheriting a neurotic diathesis, what kind of upbringing are we to prescribe? The child may have exhibited an unnatural desire for stimulants; or perhaps he is manifestly nervous, precocious, and eccentric, with a proclivity to bad habits, and with less than the usual appreciation of goodness for its own sake. What mode of life must be forbidden to such a child, and what encouraged? One glaring case I remember, the daughter of a clergyman, nervous, pale, ill-nourished, smart. When she was four or five years old, the Greek alphabet, theological dogmas, and anxious moral considerations chiefly occupied her mind. Freedom was denied to her

as well as the other conditions of robust development. Fortunately she was an only child and died while still very young. Any family physician in large practice could cite a hundred such cases. The temptation is to encourage the precocious gifts before the more essential functions have been consolidated. But there is a historic order in development which biology inculcates, and which can never be safely ignored, least of all in the case of nervous children. Genius that does not rest on a firm motor and trophic basis is an anomaly. The first duty to the child is to make him a good animal; citizenship comes later.

Dr. Clouston ("The Neuroses of Development") divides the developmental period of life into three stages. The first stage lasts till the seventh year; the second until the thirteenth; and the third till the end of adolescence, at about the age of twenty-five. Roughly speaking, we may assign to these three periods the consecutive development of the three great nervous levels—the trophic, the motor, and the mental.

In the first stage, the nervous child should lead a vegetative life. His organic habits must

be educated; the primitive bodily functions regularly exercised. A great deal can be done for children, which will go a long way towards health in adult life, by teaching them regular habits, and accustoming the brain to hygienic conditions. A little care will mould the organism to the right and proper indulgence of the appetite for food and drink, for sleep and exercise. Let the child acquire a taste for all manner of fattening foods, for the fatty articles of diet, for milk and butter and eggs; of strong meat-foods let him have little; and teach him to take his meals regularly and at short intervals. Also see that he has unrestricted enjoyment in the fresh air, and accustom him to long sleep at night, and if possible an occasional rest by day. At this early age his motor requirements are few. Give him room to grow, and that is nearly enough; let him run wild like a colt, only avoid over-fatigue, and do not trouble him with the worry of acquiring elaborate movements. His education, in the narrow sense, should be of the simplest nature. The brain grows more rapidly during this period than any other; at the age of seven it has nearly attained its full weight,

and, before that time, it should not be subjected to mental stresses. The faculty which may be safely educated now is observation, though not in such a way as to necessitate exhausting efforts of attention. This is the time of development of the perceptive functions, and, if we supply a sufficiency of pleasant food for his senses, we have provided the essential conditions of a healthy mental life. Morally, he requires but little. The imitative faculty is strong at this age, and, if he be in a good moral environment, very little direct teaching will be required.

The second period is the age of motor development, for which the average boy has a healthy appetite. The nervous child is all too likely to be allowed to neglect this part of his education, and to find his chief interest in intellectual pursuits. Nothing could be more unphysiological, for he of all others is likely to stand most in need of motor recreation. Nervous children, unfortunately, are often clumsy in their movements, and not of an athletic bent; sometimes they lack the pluck that makes the successful sportsman. But it is well worth while to have patience and to persevere

in this direction. The child should be taken the round of the sports until he finds something to suit him, and the more of them that he can enjoy the better; failing anything more lively, interesting mechanical work is of service. In later life, a sense of muscular fitness will give him confidence and grit, and aptitude of movement will save him endless trouble; besides which, he is in the meantime forming habits of recreation, and building up a nervous mechanism which acts as a storehouse of energy for the higher functions. The moral qualities most to be cultivated at this stage are balance and self-control. No one word covers both sides of the character to be aimed at except inhibition, and that is strictly speaking a physiological term. We have to provide against a tendency towards excessive development in any one direction, and against disproportionate and Quixotic interests. The danger is that we excite a sense of suppression. The proper corrective, I think, is to broaden life generally as much as possible, and aim at an all-round character; that is, allow much freedom for the development of outlying interests, and link the mind to life at every

point. The other tendency which most requires control is the proneness to spasmodic mental action; it can only be checked by putting a curb on irregular habits, by bending the mind to routine, and in replacing impulsiveness by reflective pursuits.

The period from the age of thirteen to twenty-five is *par excellence* the time for intellectual development. Before that time, and even in the first year or two of this period, intellectual strain is hurtful. The age of puberty, as we have seen, and the years of adolescence, have large trophic necessities, and the development of the reproductive function throws the others out of gear. In the nervous, therefore, who feel these stresses most, this period of intellectual development demands the same care and consideration that we give their more tender years. But space forbids detail.

Once more we must qualify what we have said by a reference to the personal equation. The order of education is a compound order—trophic first, then trophic and motor, then trophic, motor, and mental. The attention we devote to each realm must vary with every case. Hitherto, we have spoken chiefly of the

unstable type of the nervous child. To apply the same method to him and to the dull, half-savage type would be absurd. For the latter, rougher methods are more appropriate, and the strictest discipline, the hardest work, even methods apparently cruel, may be necessary to mould him to the requirements of modern society.

That these conditions cannot be fulfilled in the lives of the poor I am well aware, nor can I see what kind of preventive treatment can be applied in their case. So long as labour implies crowding, and the social environment is as immoral as it is now, so long, it seems to me, will the fate of a very large number of poor children be sealed from the first. I can see no hope for many of the offspring of habitual drunkards unless they be entirely removed from their environment, and educated away from home. It is the hope of many that such a measure will form part of an act for the treatment of habitual drunkards, and there can be no doubt that only in that way may these children have fair play.

So far, it is presumed that alcohol is avoided unless medically prescribed; and it is impor-

tant that the effect of the stimulant even in sickness should be carefully observed. As we have seen, youth is a time at which the nervous system is more susceptible to alcohol than in adult life, though its elimination from the various organs is more complete and rapid than in later years. On this account it is held by nearly all authorities on the subject that no one should indulge in alcoholic beverages before the age of twenty-five, and that it is wise to postpone their use as long as possible. It is well, therefore, that temperance organisations for the young have taken a firm hold on the country, and that popular opinion on the subject of youthful indulgence is advancing. At the same time it is questionable if the end aimed at is achieved by bringing the subject so frequently before the minds of the young as is customary ; and there can be no doubt that much harm is done by the narrowness and exaggeration which so often characterise temperance oratory. Children should be instructed in the proper use of alcohol ; they should be taught that it is a medicine of established value, just as iron and quinine are ; and there can be no harm in acknowledging its use

as an adjunct to social pleasure, provided that the risks be fully understood.

TREATMENT OF THE ALCOHOLIC STATE.

The kind of treatment demanded by the alcoholic state varies much according to the general health of the patient. It is for the physician to prescribe the particular medicinal remedies appropriate to each case, and to regulate the diet and general habits. But there are a few principles which the friends of the patient can carry out with advantage in nearly every case.

In the first place, if the patient be indulging in a bout of drinking, the immediate and complete cessation from the use of alcohol is almost invariably desirable. It is generally believed that the sudden renunciation of the stimulant is dangerous, and that it is apt to bring on grave nervous disorders. I have already pointed out the fallacy here in treating of *delirium tremens.* There are a very few cases in which a real danger exists, but that is usually a risk of heart trouble, and may be ignored by all but the physician. The sup-

position that an occasional indulgence helps to brace the nerves and strengthen self-control in a patient who is recovering from a fit of drinking is a mistake which has spoiled many a hopeful case.

Once more it is desirable to point out the importance of diet in the treatment of drunkenness. Very commonly alcoholic patients have a poor appetite, especially in the morning, and if abstinence from food be persisted in, the lowering of vitality tells seriously against the patient. A great many attacks of grave disorders would be prevented if this distaste for food could be overcome, and that can often be achieved by care and practice. I am strongly of opinion that it is of much importance that alcoholic patients should take food frequently, and that if this were attended to the strength of the so-called craving would be diminished, as well as the risks of a nervous break-down. Every two hours some food should be taken, and that should be simple and not stimulating. Milk, or milk and arrowroot, eggs, and porridge, should form the stable articles of diet for this class of patients.

Another point worth drawing attention to is

the need for much sleep. Without it, recuperation is incomplete, and self-control precarious, but if the patient sleeps well the chances in favour of recovery are enormously increased. Fresh air is the best hypnotic, and, besides inducing sleep, a long walk or drive in the country keeps the patient out of the way of temptation, and may stimulate a flagging appetite.

Careful diet, good sleep, fresh air—these are but three out of many points in treatment that we might discuss. But they are essential to the right conduct of every case of drunkenness, and no one who neglects them is giving his patient a fair chance. They are of prime importance to the drunkard at all times, and, during a drinking-bout especially, they may make the difference between *delirium tremens* and recovery, sometimes between death and life. And here we may go back for a moment to the treatment of nervous children and those predisposed to alcoholism, and repeat once again that healthy habits in matters of food, sleep, and open-air exercise can and should be taught. The treatment of drunkenness would be simplified twofold if all our patients relished

simple food, had acquired good habits of sleep, and had learned to feel the delights of country life indispensable.

MORAL TREATMENT OF DRUNKENNESS: DEVELOPMENT OF INTERNAL CONTROL.

Though an account of the treatment of drunkenness would be incomplete without a reference to the moral means which we adapt for the development of self-control, it does not fall to me to discourse at large on the moral aspects of inebriety. Temperance sermons, fortunately, are not part of the physician's rôle. Our business is merely to put on record a few observations upon which nearly all authorities are agreed, and which are the results of more or less scientific consideration of the physiological possibilities of reform. If drunkenness had no pathology, and convalescence no physiology, this branch of our subject might be entirely left to the clergy.

The problem before us is how to reconstruct the character of a patient whose mode of living has stripped him of those very qualities which are most potent in the development of a moral

life. Unselfish interest, be it remembered, is at its ebb, the power of attention and perseverance is slight, of surplus energy he has none. But though it be true that alcoholic dissolution impairs the basis of much that is good in a man, it is also true that nearly all men, under care and proper direction, are capable of developing a new line of life when the old has lost its vigour. It has been put on record again and again that when cerebral disease or accident has destroyed the basis of certain functions, new areas of nervous mechanism have taken upon themselves the functions of the lost parts, and have acquired the requisite proficiency in the performance of them. Some analogous process of re-education is what we look for in the case of the drunkard, and it now remains for us to consider how best we can suggest new motives to his mind, and how direct the energy which we hope to elicit.

The first question that arises is, What is to be the patient's relation to the habit which we are endeavouring to overcome? He must abstain, of course; but are we wise in bringing the temptation frequently before his mind, if even to try and strengthen him against it? As-

suredly not. It will be found that the drunkard's experience confirms that of the nursery, that to forbid indulgence is to suggest it. The unanimous opinion of physicians of the mind is that, generally speaking, the way to cure a delusion is not to contradict it, and the way to correct an evil propensity is not to malign it, not to laugh at it, but, so far as is practicable, simply to ignore it. It may be necessary for the patient's own peace of mind that he should sign a pledge ; as a rule, short pledges are to be preferred, and it is of value to the patient that someone else should sign it with him, who is not a total abstainer proper, yet who can keep his drinking within proper limits. But I am convinced that the periodic meetings to abuse and denounce drinking, which are solely of the character of a negation, do as much harm as good, and, above all, that it is hurtful to make an important occasion out of every relapse, and thereby lessen the patient's self-respect and waste his energy in fruitless remorse. Says Mr. Robert Louis Stevenson ("A Christmas Sermon") : "To make our idea of morality centre on forbidden acts is to defile the imagination, and to introduce into our judg-

ments of our fellow-men a secret element of gusto. If a thing is wrong for us, we should not dwell upon the thought of it; or we shall soon dwell upon it with inverted pleasure. . . . A man may have a flaw, a weakness, that unfits him for the duties of life, that spoils his temper, that threatens his integrity, or that betrays him into cruelty. It has to be conquered; but it must never be suffered to engross his thoughts. The true duties lie all upon the farther side, and must be attended to with a whole mind so soon as this preliminary clearing of the decks has been effected. In order that he may be kind and honest, it may be needful he should become a total abstainer; let him become so then, and the next day let him forget the circumstance. Trying to be kind and honest will require all his thoughts; a mortified appetite is never a wise companion; in so far as he has had to mortify an appetite, he will still be the worse man; and of such an one a great deal of cheerfulness will be required in judging life, and a great deal of humility in judging others."

With "this preliminary clearing of the decks" effected, we may proceed to muster our forces.

It is a law of organic evolution that whatever is new for the time being prevails. Whenever a new adaptation to environment is being evolved, the organs which fulfil the new function command, for a time, the resources of the organism, and may even hamper more essential functions. Whatever introduces us to life in a new quarter, whatever establishes a point of contact that we had not made before,—that, for a time, absorbs our attention and commands our interest. That is the physiology of change. New ideas dominate us, new lines of thought, unusual surroundings, fresh endeavours. "The expulsive power of a new affection" Dr. Chalmers called it. How long it will last depends on the variety of experiences to which the affection may be related, and the number of activities to which it may give issue. Such an enthusiasm is what is required for the drunkard, and, in order to make the new inhibition effectual, it is not only necessary that we should as far as possible provide against a return to the old mode of life, but still more that we should give opportunity to the new.

Of the endless variety of motives which have been found to control the alcoholic habit, some primitive form of self-interest is the most common, and religion the most effectual. I have heard of a man who began a successful reform because his poverty compelled him to practise his licentiousness amongst low associates, whose squalor killed his pleasure. The same kind of inhibitory effort, with a view to a higher scale of enjoyment, controls the drunkard who for weeks saves himself for a Christmas or New Year outburst. These and similar motives—the desire of gain, the shame of poverty, the dread of imprisonment—may not be much to boast of, but as beginnings they are hopeful.

Were we not used to the phenomena of religious revivals, the force of reforming energy which they bring with them would strike us as little short of miraculous. I have myself known several cases, and any city missionary can tell of scores, in whom a newly-found religion uprooted a deeply-set habit of drunkenness, supplied strength of character in place of inveterate weakness, and gave life-long interest to an existence that seemed incurably

hopeless and barren. It would be out of place for me to dwell further on this subject; only I wish to make an observation that may be of some practical value. A new affection to be effectual must be conspicuous for one of two qualities—intensity or extensiveness. Extensiveness means that the mental process in question is many-sided, capable of being related to the most varied experiences, established in the mind by many associations, and expressible in various forms of activity. Now, roughly speaking, intensity is characteristic of the lower affections, extensiveness of the higher. The indulgence of animal propensities, for example, may give intense pleasure, but it is not extensive; the conditions for its enjoyment are limited, its occasions comparatively few, its expression always the same. A religious sentiment, on the other hand, is marked by extensiveness; there are few conditions in which it may not be enjoyed, its opportunity is always, its expression varied. It is therefore dangerous to trust to ideas and sentiments whose efficacy depends on the intensity of the pleasurable feeling which they excite, for, so far as intensity goes, they cannot com-

pete with the pleasures of drunkenness. Rather trust to ideas whose realisation creates an enduring affection, and which may be given effect to in every part of conduct.

Next to religion, love is the most effectual motive of reform. Many drunkards have found salvation in the enthusiasm of a newfound love and in the domination of a noble personality. But there is a danger here. It may be right that a woman should sacrifice herself so far by continuing an attachment to a man, though without marrying him, in the hope of saving him from his habit. But that a woman should marry a drunkard, however noble her motives and however strong her hope, is surely an unjustifiable sacrifice. Not one in a thousand women could cure the drunken husband's habit and keep his love; and that being granted, the risks to herself are awful, to posterity they are unspeakable.

In the all but universal wreck of moral interests which drunkenness compasses, one redeeming feature often still remains, and that is family affection. Here, if anywhere, in the character of many drunkards, is a

sphere in which, with some hopefulness, we may expect the new enthusiasm to find its suitable expression. Amongst the poor of our slums we may again and again see a noble struggle of family affection against brutal habit; and, often enough, victory remains with good, and the drunkard grows keen and proud as he sees his weary family becoming happy and comfortable and strong. It is in such moral activities as these that the direction and encouragement of a friend is often of the greatest value. It is not enough that we should inspire a new love of life in our patient; it is necessary also that we give him room to grow and spread. And now and then, if relapses be not fatal, and circumstance not hopeless, he will surprise us with the strength and persistence of his moral efforts, and with the joy that is born of convalescence, like the spring that a man feels who comes back to life from a long and wearying illness.

Drunkenness, from one point of view, is a monomania—essentially a perversion of attention. The drunkard, like the patient who has been hypnotised, can give his attention only to

one series of suggestions ; to all others his senses are dull and his interest preoccupied. What is wanted is not so much that we should try to suppress his excessive appetite, as that we should make him alive to others. We must ply him with stimuli of all sorts ; we must fill up his life here, there, and everywhere ; we must find suitable expression for every mood, transform his desires, direct his activities. And all the time he must be made to feel that he is recovering and growing, that life is worth living, that after all he is more than a brute.

The treatment of drunkenness demands as much care, and as much consideration of the particular requirements of each case, as does its etiology. The conditions of recovery are as varied as the factors in causation, and a knowledge of the latter will throw much light on treatment. In particular, we must study the patient's mind, if he may still be said to have one, to see what manner of man he was ; inquire of his friends as to their impression of his previous character, and of the moral causes of his break-down ; and apply the kind of moral treatment which I have indicated, on the lines which these particular inquiries suggest, and to

the fullest extent which his environment and resources permit.

APPLICATION OF EXTERNAL CONTROL.

The application of external control is necessary in nearly every case of drunkenness. However successful our treatment of the patient may be in infusing interest, stimulating energy, and strengthening the will, our cases are bound to be lost if no compulsion be applied, so long as the opportunities of drinking are such as they are now. For the ordinary habitual drunkard all that is required is that he be dominated by someone of forcible character. The rich can afford the luxury of a medical man or a skilled attendant. The poor must be content with less expensive help, and in their case the want can best be supplied by someone of suitable character whose rank and mode of life are similar to those of the patient. It is of course necessary that circumstances permit the companion to be all but constantly in the society of his patient.

At the best, the care of a drunkard is a heavy, thankless task. It requires consummate tact to retain the patient's friendship,

and consummate skill to shield him from his vice. One must be his friend and confidant, his servant, his companion, and, at the same time, his policeman and the keeper of his conscience. The patient is a creature of habit, and devoid of origination ; we must take the initiative for him. His faulty judgment must be corrected, and his sleepy will aroused. We must remember for him, for his observation is inexact, and his memory is loose. His purposes are insecure ; we must take him by the hand and sometimes drive him. He is untruthful, often maliciously misleading ; we must distrust him and consider him a liar. We must be patient and even-tempered when he is irritable and moody. Above all, we must be pertinacious, and refuse to leave him, though he hates coercion, and would gladly see an end of our companionship. It is important, if our treatment is to be in the highest sense successful, that we keep it hidden from the patient, that we are thinking and acting for him. It is here that tact comes in. It is not enough that the patient should believe in us ; he must learn to believe in himself. When something must be decided on, it must be done by suggestion,

so as to make the patient feel that the choice was his; and similarly in every other relation, however complete our domination of him may be, he must be taught to believe that he is growing strong, and not that his personality is being lost in our's; that he is developing, and not that he is being submerged.

On occasion, though very rarely, it may be necessary to have recourse to physical force, and it is therefore well that the companion or attendant should be stronger than the patient. As a rule, the victim of alcohol is cowardly, and often he is facile, so that one may generally persuade him by gentler means, or, if not, coerce him by fear. When one must actually assert physical supremacy, the danger is that he will at some time retort in an offensive, underhand way. Another practical point worth noting is in regard to the patient's untrustworthiness. It is best to let him understand clearly at the outset that, however much one may respect his intentions, his resolution cannot but be mistrusted; that in spite of protestations and promises it will always be one's duty to see to it oneself that things are safe; and (though one need not say so) that his word cannot be

relied upon. Having at once assumed this attitude, the next thing is, as far as possible, to let it escape his notice, and if one persist in adopting it he will get used to being "shadowed," and will eventually be none the worse for the supervision.

LEGISLATIVE TREATMENT.

There can be no doubt, as I have once and again repeated, that our present-day social environment is unjustifiably drunken in its tendencies. In the upper classes the case of a drunkard who has no one to exercise strong control over him is well-nigh hopeless. Amongst our poor, whose conditions of life are at least unencouraging and unhealthy, the position of a friendless drunkard is as absolutely without hope as any position can be. True, it is a law of life that the strong shall survive, and that the individual who cannot fight his own battle is better out of the way. But men of our day are not content to stand by and see the weak eliminated. Christian civilisation is a protest against the survival of the fittest in its crude, rough sense, and we may not go back

on it now. There is an evolution of environment necessary, as well as of the organism, and it is our business to modify social conditions so that they may be fit for the weak to live in and outgrow their weakness. As we have already said, the social customs of our day which make for drunkenness may be safely left to time and the years of discretion. No so our institutions. The public-house which exists on drunkenness, and the publican who encourages it, are barbaric anachronisms. The sooner we have done with them the better. So, too, the laws which regulate the liquor traffic or the administration of them are surely out of date and require revision. Indeed, it is all but universally acknowledged that this is so. For my part, I confess that the legal aspects of drunkenness are intricate and difficult beyond endurance. But it does seem rather primitive that a citizen may make a living by encouraging his fellow-citizen in drunkenness and still be counted respectable; that the sale of alcohol, which is to many men a poison, should be to a great extent subject merely to the law of supply and demand; and that the purity of the article sold

should depend largely on competition. We are told by competent authorities that the law as it now exists is a sufficient remedy for drunkenness; in other words, that the blame attaches to those who administer it. It is not likely, I think, that this charge of incompetency will be endorsed by public opinion. The sooner we bring about efficient legislation the better, and we must see to it that the laws we pass are such as can be carried out by their administrators and supported by popular sentiment.

There are three obstacles to reform in this direction. The first is the vested interest, and, in so far as this makes for drunkenness, it may justly be dealt with summarily; the second is the intolerance and narrowness of the prohibition-enthusiasts; and lastly there is the imperturbable inertia of the average British subject. It will take much wisdom and hard pushing to oppose all three successfully. But at present the subject is very much before the public mind, the evil to be remedied is a crying one, and there is no scarcity of wise and able men who are prepared to do much for reform. All that is necessary or advisable for me to do

here is to indicate, in a general way, the various kinds of improvement proposed, and to point out some of the therapeutical aspects of the case.

We may classify the various proposals under three headings, according as they are directed towards the abolition of the drink-traffic, to its improvement, or to the direct treatment of the drunkard himself.

1. *Proposals which deal with the Abolition of the Drink Traffic—Prohibition.*

There are a great many temperance reformers, and as a rule they are very ardent, who regard the whole drink traffic as essentially and incurably vicious; and the only kind of reform which they will countenance is one which will prohibit the sale of alcohol, either entirely or in localised areas. I cannot do better than quote from good authorities on this point.

At the end of his consular report on the subject (1890), Mr. H. G. Edwards makes the following "General Remarks" concerning the experience of the United States in the matter of prohibition:—

"GENERAL REMARKS.

"There is nothing to alter in and little to add to the general remarks which accompanied the last report on this subject. The arguments remain the same, and sufficient data have not been obtainable to hold out in favour of one side or the other. The contest between the 'High License System' and the 'Prohibitory System' has been carried on since 1887 with as great, if not greater, vigour as before that date. As will be seen from the above report, the popular vote has been taken, since 1887, in five States, on the question of adopting an amendment to the State Constitution, by which, if carried, prohibition would have been established in the State. In each case the voters have declared themselves, by a large majority, against prohibition.

"In the State of Rhode Island, where prohibition has existed since 1886, an election has been held during the current year by which that system was voted against by considerably more than the required majority of three-fifths of the whole vote.

"An amendment to a State Constitution can only be made by a majority of three-fifths of the popular vote. In Rhode Island in 1886 prohibition was carried by the necessary majority. In 1889, prohibition, which had thus become a law of the State Constitution, was defeated by the necessary majority.

"This change of opinion on the part of such a large number of the population of one State, amounting to, as it must have done, at least one-fifth of the whole, having taken place, as it did, after less than three years' experience of the working of the prohibitory law, is a strong argument against the system. The theory of prohibition may be worthy of consideration and praise, but the absolute impracticability of the working of such a system in most places where it has been tried, has led a large number of those who earnestly desire to promote temperance to consider whether the object they have in view will not be better advanced by a change to a system of legislation which, although not so perfect in theory, can be practically worked. It is the business or advantage of none but authorised officials to help to carry out prohibition, whereas such officials are sure

to be materially aided in enforcing the law under 'High License' by those who have conformed to its provisions. Whatever statistics have been obtained, few and incomplete as they may be, tend to show that under high license the number of drinking saloons decreases, as well as the number of cases of intoxication brought before the local magistrate. The latter result is undoubtedly a consequence of the former.

"Legislation can certainly help certain classes of the population to be abstemious and temperate, but with the others no amount of legislation on such a subject can have any influence. As the higher orders change, so will the lower.

"The steps in the right direction which are being made, and there is no contesting the fact that they are being made, although perhaps not with that rapidity which might be desired or expected by some people, must be attributed solely to the general progress of the country. This progress will continue at an increasing rate, and with it I feel confident that the cause of temperance, independent of legislation, will advance."

The obvious disadvantage of the "High License" system is that it restricts competition. In a previous report (1888), Mr. Edwards says that "in spite of the adverse views of the prohibitionists, it is strongly maintained that the 'High License' system has thrown the liquor traffic into the hands of a more respectable class of dealers." But in this country it is generally feared that such a monopoly would greatly increase adulteration and its consequent evils. The point seems to be that prohibition, to be successful, must be put in operation in a district where there is a strong popular feeling, almost unanimous, in its favour. If the areas to which Local Option is given be small enough in extent, and if a sufficiently large majority be demanded before Local Veto is granted, the success of the measure — for a given area, at all events—seems certain. In an article contributed to the *Scotsman* (19th January, 1893), Mr. T. W. Russell, M.P., discusses the working of the "Scott Act" in the Dominion of Canada, and his observations seem to show that the success of any prohibitionary measure depends more on the popular feeling in the district in which it operates than on the intrinsic

merits of the Act. After speaking of the conflicting opinions on the subject, according to the interests of the various parties concerned, he says, ". . . . in this case the facts are tolerably easily got at, and, so far as I have found them, they are a disappointment to both of the parties mainly interested. . . .

"CANADA AND TEMPERANCE REFORM.

"The main question in dispute is as to the working of what is called the Scott Act. This measure was passed in 1878, and for all practical purposes is our old and well-known friend the Permissive Bill. Under this statute—which, by the way, was an Act of the Dominion Parliament—it was possible for the inhabitants to prohibit the common sale of intoxicating liquors within certain areas. Outside the cities and large towns in the province of Ontario the Act was largely adopted, the voting being in almost every case heavily in its favour. Once adopted, the Act stood for three years, and liquor could only be legally secured for specified purposes at specified places. In this province—the most populous in the Dominion

—there is no room for doubt as to what has happened. There is not a square inch of the soil of Ontario under the Act to-day. Everywhere it has been repealed by considerable if not by large majorities. The temperance party do not seek to conceal this. In the annual report of the Dominion Alliance for 1890 the fact is admitted thus :—

"'The Scott Act has been repealed in every county and city in the province of Ontario in which it was in operation. The seeming defeat is not, we believe, to be attributed to any decrease of public sentiment in favour of the principle of prohibition, nor is it evidence that the Scott Act is not a law deserving of general support. It was brought about mainly by public dissatisfaction with the failure of the authorities to enforce the law, combined with unfortunate political complications which led to earnest work for repeal on the part of men who were more anxious for the success of party than for the triumph of principle.'

"The Act was never availed of to any extent in the province of Quebec, and I could hear of no county that had stood by it. But in the maritime provinces, especially in Nova Scotia,

the results have been different, and over these three provinces the Act is law, so far as I could learn, in thirty-three counties. I made careful inquiry as to its working in these places. In Nova Scotia there is hardly a license outside the city of Halifax. In New Brunswick, out of fourteen counties and three cities, the law is enforced in nine counties and two cities. In Prince Edward Island prohibition is the rule. No doubt there is illicit sale. But whatever this may amount to, the broad fact stands out that in these provinces a population of nearly a million people have brought the law into operation, and successfully resisted all attempts to repeal it."

I have given only a short extract from Mr. Russell's paper. He gives official statistics in support of his facts, and makes observations, to which I shall presently refer, on the working of the laws regulating the sale of liquor, as to Sunday closing and other particulars.

The great requirement, as it seems to me, is Local Option in a very broad sense. We hear much of Home Rule now. Here is an opportunity. Surely it will not be denied that town and county councils, and the various bodies

which govern our local affairs, are thoroughly competent to deal with the details of the liquor laws.[1] We are a slow and cautious people, averse to making experiments. But the disease is so bad that the cure could scarcely be worse, and until various remedies have been tried we are not likely to make much progress. Moreover, each district requires its own form of liquor control. What suits Canada may do mischief in Ireland, and a measure which would work wonders in Edinburgh might fare very badly in the English Midlands. But, manifestly, if anything is to be gained, something must be risked, and it is still a truism that nothing worth having is obtained without much trouble. If the people are unwilling to experiment, and if local governing bodies are not prepared to undertake this responsibility, or not competent to fulfil it, we are safe in assuming that the country still greatly requires education on the question, that we are not ripe for new legislative measures, and that the demands of prohibitionist reformers cannot yet be safely granted.

[1] More recent opinion counsels the election of a popular local board, specially appointed for the purpose.

2. *Measures which propose to Improve the Drink Traffic—The Gothenburg System.*

Here and there, in an odd corner of the country where perhaps local opinion is in advance of its time, the village public-house has been taken in hand by men who have no desire to enrich themselves by the concern, and who conduct the business in such a way as to make moderate drinking harmless and excessive drinking difficult. That is, in effect, the Gothenburg system. Amongst the much-abused class of publicans, many such men will be found, who regard their traffic as serviceable and right, who would often refuse to sell were it within their conventional right to do so, and who would sacrifice as much for the reclamation of a habitual drunkard as would the average temperance reformer. It must be confessed, however, that, in our large towns especially, such publicans are few, and that it is the rule for the public-house to be owned by capitalists and run by managers, who sail close enough to the wind in the evasion of the law, and whose one motive is money-making. To

obviate this uncivilised state of affairs many men pin their faith to the Bishop of Chester's scheme or some other modification of the Gothenburg system. The real value of such measures can only be tested by experience. Speculation on the possible results is almost useless, and the opinion of men who have not lived for a considerable time under the working of such a system cannot be regarded as authoritative. In 1890 the consular report by Sir F. Plunkett on the working of the Gothenburg system in Sweden since the year 1876, contained the following statements:—

"The public-houses of Stockholm during the last few years, before the formation of the company, had nearly reached the number of 200, a proportion of about 1 to every 750 inhabitants.

"The first use the company made of their monopoly was to reduce the number to 87, a proportion of 1 to every 1695 inhabitants.

"It is worthy of remark that, although this great reduction was effected in a single day (the actual number of public-houses existing in Stockholm on September 30th being 193), no

protest was made on the part of the lower classes, who thus suddenly found 106 of their customary resorts closed against them.

"In this connection it may be useful to note that Herr Rubenson, chief of the Stockholm police, in a pamphlet recently published by him, is very emphatic in the expression of his opinion that the amount of drunkenness in a town is to a great degree dependent on the number of the public-houses existing in it. This relation of cause and effect having, it appears, often been called in question by English authorities, it will presumably be of interest to hear of so decided a pronouncement on the subject from a man of Herr Rubenson's special knowledge and great experience.

"The Stockholm company have been careful in selecting good open situations for their public-houses, so that, in addition to the advantages accruing from the diminution in the number of such establishments, a great advance has been made in the matters of light, air, and cleanliness.

"These improved conditions have, in the opinion of Herr Rubenson, greatly conduced to the decrease of drunkenness which has taken

place in Stockholm during the last 13 years. He considers that the lower orders feel a certain constraint in the light, well-ordered, and respectably frequented premises of the company, and are ashamed to conduct themselves otherwise than properly in the midst of such surroundings. They could, of course, drink in their own houses, and it was at one time thought that this would be a danger attendant on the methods pursued by these patriotic associations, but in practice these fears do not seem to have been justified. In addition to the restraining influence exerted, in the case of married men, by the presence of their families, must be added the fact that the monopoly enjoyed by the company has had the effect of raising the average price of brandy from 0·69 kronor (10½d.) to 1·4 kronor (1s. 2d.) per litre. For brandy consumed on the premises the price now charged is 1·60 kronor (1s. 9½d.) per litre, as against 1·15 kronor (1s. 3½d.), at which it stood previously to 1877.

"It is generally considered that the early hours of closing enjoined by the statutes of the Stockholm company have had much to do with the diminution of drunkenness. When the new

system was first introduced, the public-houses were closed every night at 10 o'clock, and on Sundays and holidays they were shut up for 7½ hours during the day. But in 1883, in compliance with a petition signed by some 10,000 men of the working classes, a reform was introduced.

"On January 30th of that year an order was issued that in future no liquor should be served out on Sundays or holidays unless food were taken at the same time, and that on Saturday evenings, after the workmen had received their week's wages, the public-houses should be closed at 6 P.M. The same early hour of closing was also to be observed on the days preceding holidays.

"It seems needless to occupy space by giving separate tables of statistics showing the decrease in the quantity of spirits consumed in Stockholm, and in the number of persons fined for drunkenness proportionately to the number of inhabitants, inasmuch as they would be almost a repetition of those already given for the town of Gothenburg, the rate of improvement having been nearly the same in the two instances. It should be observed, however,

that the returns published of the cases of *delirium tremens* and chronic alcoholism are not so favourable for Stockholm as they are for Gothenburg.

"In order to make the evidence with regard to the working of the Gothenburg system as complete as possible, Her Majesty's Consuls at Stockholm and Gothenburg were requested to obtain returns from the Vice-Consuls within their respective districts.

"Replies have been received from 22 Vice-Consuls in all, and are without exception favourable to the new system. In every case, except one, where statistical information has been supplied, the figures show a decrease in the quantity of spirits consumed and in the number of fines for drunkenness, never less and often greater than is the case for Gothenburg. This seems to be of importance in showing that the scheme works quite as well when applied on a small scale as it does for such considerable towns as Stockholm or Gothenburg. The single exception above-mentioned is in the case of Umea, which was partially destroyed by fire two years ago. The large influx of working men brought

into the district for the rebuilding of the town seems a quite sufficient explanation of the increase of crime and drunkenness which appears to have recently taken place there.

"Another unanimously favourable expression of opinion was obtained from the governors of provinces, in Sweden, in the year 1877. A committee of the Diet, appointed by the King, had submitted a series of questions to these officials, of which the fourth stood as follows: "What results have been found to accrue from the transfer of the liquor trade to companies in different communes, in the way of promoting order and morality?" From the résumé of the replies received, published by Dr. Wieselgren in his account of the Gothenburg system, the governors appear to have borne unbroken and unvarying testimony as to the beneficial effects which had followed the application of the system."

In the *Scotsman* of Nov. 17th, 1892 (immediately before the Edinburgh meeting for the discussion of the Bishop of Chester's scheme), Mr. David Lewis, J.P., gave his

reasons for opposing the Gothenburg system, which were arrived at by him after a visit to Norway and direct observation on the working of the scheme. In reply, Mr. Thomas M. Wilson, author of "Local Option in Norway," who has all the authority acquired by residence in a controlled country, wrote a long letter to the *Scotsman* of Dec. 17th, 1892, from which I make the following extracts :—

"Mr. Lewis states, 'The fact that the traffic had been transferred from private liquor sellers to a corporate body I found had tended to throw around it an air of respectability which it did not hitherto possess.' That is another flight of fancy. The exact reverse of what Mr. Lewis states is the case. No person of the better class would dream of going into a Society's bar, and the respectable working class, desirous of maintaining their position, avoid them like poison. The fact that the customers are subjected to control, and may be refused supply at the discretion of the barkeeper, has stamped the Society's bars, in the opinion of all classes, as something of a reformatory nature, and they are avoided by all with

any pretensions to respectability or self-respect.

"Mr. Lewis states, 'There are hundreds of young men in Bergen who would shrink from being seen in a liquor shop conducted by a common publican, who are found frequenting the shops of the Samlag with as little compunction as if entering a literary institute or a public library.' That statement is perfectly false, and a slander on the young men of Bergen. The young men of Bergen are conspicuous by their absence from the Society's shops. The customers are almost exclusively working men of the very lowest class, and the great bulk of them are middle-aged and elderly men, largely of the generation that preceded control. Out of 207 customers who entered the chief bar yesterday forenoon, only three were apparently younger than 26 or 27 years of age, and these were three young peasants from the country. Bergen young men are very rarely met with in the Society's shops, chiefly from the popular discredit attached to the bars, but also from the fact that they drink beer rather than spirits. Peasants, on the other hand, drink spirits rather than beer, and young

peasants are more frequent visitors; but, as stated, the great bulk of visitors belong to the older generation. There is no lack of evidence to prove that control has immensely improved the habits of the Bergen population, and reduced drunkenness, especially among young working men. There is evidence, too, that the class of confirmed drunkards is dying out with the older generation. In 1885, for instance, 257 of the persons apprehended for drunkenness were classified as confirmed drunkards. In 1891 the number had fallen to 107. Nothing could well be more unfounded than the charge made by Mr. Lewis against the young men of Bergen.

"Mr. Lewis states he 'found the shares being sold at a premium.' The average amount of each shareholder's stock is only £33, on which he receives 5 per cent. per annum interest. The value of money in the open market has for the last two months been 5 per cent., but for long before it varied from $5\frac{1}{2}$ to 6 per cent. Not a single share has changed hands at a premium for several years—not since the shareholders lost their right to vote direct over the disposal of the profits. It was that right which

gave the shares, a number of years ago, a certain value beyond their actual money value."

The next part of the letter deals with statistics regarding the effect of the system on the sale of liquor, but that is more or less outside our present question. But I append the end of the letter where Mr. Wilson speaks of the effect of the change on public drunkenness, and gives his conclusions on the general results of the system :—

"Mr. Lewis states, 'We have staring us in the face the fact that during the first six months of this year there were 1856 police arrests, and of these 25 per cent. were apprehensions for drunkenness.' That is a very satisfactory statement, because it proves that the apprehensions for drunkenness are likely to be reduced this year when the returns are completed for the year. The apprehensions for drunkenness have almost steadily decreased since the Society was established until 1890, when they increased at a bound. The following is a statement of apprehensions :—

1887	685	1890	1122
1888	728	1891	1047
1889	729		

The explanation of the rise in 1890 is not, as Mr. Lewis assumes, increased drinking, but increased police stringency. At the end of 1889 an inspector of constables entered upon his duties, and the police bye-law against public drunkenness has been rigorously enforced. The bye-law is to the effect that anyone appearing on the street or in a public place in a state of visible intoxication is subject to be locked up until sober, and fined. Prior to 1890 the police practice was to permit drunken persons who caused no disturbance or a crowd to assemble to go home, if they agreed to do so quietly when spoken to by a constable. Now all are locked up till sober, and fined 2 kronor for the benefit of the police fund.

"The population of Bergen is 56,000, not 50,000 as stated by Mr. Lewis. The apprehensions for drunkenness will, I am told, most likely show a very gratifying improvement for 1892.

"Finally, there is every reason to believe that

the statistics of the Bergen Society will year by year show an increase of sales, due to transference of wholesale trade from the hands of private dealers, and to the influence of the tourist traffic ; while the consumption of the local population is steadily, although perhaps slowly, decreasing. It is not to be expected that it will decrease at the same rate as in the first years of the Society. Control was introduced into Norway in 1871. Since then, practically every town that could form a controlling society has done so, and there are now 51 controlling societies.

" Population has increased 14½ per cent.

" Consumption of spirituous drinks has decreased 45 per cent.

" Crime has decreased 16 per cent.

"Poor's relief, per head of family, or individual not member of a family, has decreased 15 per cent.

" The number of depositors in savings banks has increased 145 per cent.

" The value of their deposits has increased 100 per cent.

" The number of total abstinence societies and branches has increased from 30 to 801.

"The adherents of total abstinence societies have increased from 3000 to over 100,000.

"The number of persons able to pay income-tax and thereby acquire the Parliamentary franchise at the last general election—two years ago—was just about doubled."

I have not had under my notice any adverse opinion on the general effects of the Gothenburg system, where it has been duly enforced, by anyone resident in a controlled district, else I would willingly have read it and as willingly quoted it.

3. *Measures which propose to Restrict the Liberty of certain Individuals — The Habitual Drunkards Bill.*

All measures which prohibit, or in any way increase the control over, the liquor traffic, impose additional restrictions on certain individuals, but especially on habitual drunkards. Before considering the Habitual Drunkards Bill, it would be well to glance briefly at the

effect of those measures to which we have already alluded, on individuals whom the physician may fairly regard as his patients.

Under many prohibitionary schemes, and under the Gothenburg system, the sale of alcoholic liquors to habitual drunkards is forbidden. The intention is most praiseworthy, and its effect, if carried out, would be well-nigh a solution of the whole problem. But to make this part of the schemes practicable, we should require a class of publicans of the most sturdy moral fibre, an educated community bent on upholding the law, and executive officials rigorous in administering it. With police efficiency at its present standard and public sentiment as it now is, I defy any township or borough to give effect to such a proposal.

It is a much vexed question how far the restriction of the sale of liquor has a beneficial effect on those predisposed to excessive drinking. The question is much involved, and gives ample scope for prolonged discussion. But both the space at my disposal and the interest of my readers are limited, and I must confine myself to a few dogmatic and somewhat disconnected statements.

Mr. T. W. Russell, M.P., in the article quoted above, makes the following comments on Sunday closing and early hours in Canada:—

"Leaving the question of prohibition behind, I found the laws regulating the sale of liquor much more stringent than in the Old Country. Sunday closing, for example, prevails throughout the whole of Canada. There is no exception to this rule. In Toronto, a city of close upon 200,000 inhabitants, and where Sunday is observed with more than Scottish strictness, I could find no trace of evasion of the law. And in Montreal, a city of 250,000, largely Roman Catholic and French, I spent three hours with a detective in the endeavour to find illicit sale. I found none. If the law is carried out in these two cities it goes without saying that all is plain sailing elsewhere.

"But the Canadians have gone much further in the way of restriction than this. The saloons close at 7 P.M. on Saturdays in Ontario. The closing hour is 6 on Saturdays in Nova Scotia, and in Quebec, outside of Montreal, it is 10 P.M. But this is largely a matter of local regulation, and proposals are constantly made

and votes taken for early closing of saloons and bars."

Professor Blaikie of Edinburgh, in a letter confirming generally Mr. Russell's observations, spoke particularly of the general elevation of moral tone in Toronto, and attributed it largely to the control of the liquor traffic. Taking all the evidence into account, the conclusion inevitably arrived at is, that there is a distinct relation between drunkenness and the number of public-houses, and also their hours of business. Prohibition will not cure the habitual drunkard, but it will diminish his occasions of drunkenness. A dipsomaniac will not stop drinking because he must travel far in order to obtain alcohol, but he will be more seldom and, perhaps, more thoroughly drunk. Similarly, he will not drink less for having to wait a few hours longer for it, though his periods of sobriety will be more frequent. The therapeutic value of such restrictions on the confirmed drunkard may, therefore, be disregarded. But their importance to those about to become drunkards is very different, and it is in the preventive value of those measures,

which prohibit the liquor traffic, or restrict its hours, that their strongest case lies. Prohibition, in its widest sense, lessens public drunkenness. Illicit drinking may be increased, with its added evil effects on the shebeener, but the streets will be more sober, and drunkenness more disgraceful. To the young especially, the moral restraint thereby imposed is of the utmost value. And to others, who perhaps drink moderately and have no great dread of intoxication, anything is of importance which accentuates the popular judgment that moderate drinking is permissible but drunkenness disreputable. But above all, there is a very large class of half-way patients, who are just at that stage when opportunity makes the difference between moderation and excess—youths who will get drunk if they may do so without much trouble, and if the custom of the neighbourhood points that way; artisans and clerks who will drink whisky as long as it can be had as cheaply as it is now supplied, but whose economy would drive them to milder liquors if the price of spirits were raised; ordinary moderate drinkers who would gladly walk a hundred yards to "stand a friend a drink," but

whose thirst would probably not carry them a mile, and certainly not three; patients who have begun a drinking bout and are on the verge of dangerous excess, who would be saved by the enforced abstinence imposed by a measure which closed the public-house from Saturday afternoon till Monday morning.

But in spite of all the physician can do, and in defiance of the strictest application of the liquor laws, there are hundreds, nay thousands, of habitual drunkards, for whom, it is acknowledged, no method of treatment which we can at present apply is of any permanent value. All that the law can do is to imprison the drunkard for punishable offences, or place him in an asylum if he become insane. Imprisonment for periods of more than a week or two is very rarely resorted to for convictions of drunkenness, however frequent these convictions may be. Perhaps the bench is wise in giving such short sentences. It is extremely unlikely that the present mode of prison life would be found effectual as a means of curing the alcoholic habit. In pronounced cases some much more positive treatment than mere abstinence is needed. The moral tone of the jail

can hardly be expected to develop character, nor its associations to engender self-respect; and the chances are that the inebriate emerges from a prolonged term of imprisonment with his thirst accentuated and his self-control diminished. The objections to the confinement of the habitual drunkard in an asylum are equally valid. In the first place, defective self-control in the direction of drinking does not rank as technical mental disease, and as soon as the symptoms of his actual insanity have disappeared, the law demands that the patient be "discharged recovered." Moreover, physicians admit that, for the most part, the conditions of asylum life are not the best possible for the cure of drunkenness, chiefly because, generally speaking, the facilities for obtaining drink are considerable; and, further, that alcoholic patients are so untrustworthy, so discontented, and so malicious, that their company is an "offence to self-respecting lunatics," and their care an unjustifiable burden to the officials.

For the cure of habitual drunkenness it is absolutely necessary to have compulsory confinement under appropriate conditions, and for a lengthened period, according to

the requirements of the case. With this end in view a "Habitual Drunkards Bill" has been drafted,[1] whose provisions we need not here discuss further than to say that it will confer on responsible persons the power to confine habitual drunkards, all due care being taken to prevent abuse. No such power at present exists, though on all hands it is acknowledged to be necessary as well for the patient as for society. To this Bill one but rarely hears any strong objection made. The two favourite arguments against it are on the score of interference with the liberty of the subject, and, secondly, on the ground of expense. It demands some patience to consider the former of these objections. By the time the patient requires compulsory confinement he has forfeited much of his claim to the liberties and privileges of a well-conducted citizen. The danger of such an abuse as the confinement of a patient who did not require it might easily be obviated.

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[1] See House of Commons Report from the Select Committee Habitual Drunkards. (1872.)

Also Draft, by the late Mr. Morton, W.S., Edinburgh, of "A Bill for an Act to be intituled The Restoration Homes (Scotland) Act." (1887.)

Dr. Clouston, as an asylum physician, has treated over ten thousand insane patients, and is able to say that he has never known a case of wrongful detention in an asylum. The penalties attaching to such an offence are so great, and the supervision of the General Board of Lunacy so complete, that malicious detentions, in Scotland at all events, are practically unknown. Surely the liberty of the subject, even with the additional risks involved in a Habitual Drunkards Act, might safely be trusted to the intelligence of a General Supervising Board, and to the good-will of the community.

The other objection on the score of expense is not so easily dealt with. It has been proposed that the Act should at first apply only to private patients who would bear the necessary expense. But if success followed its application to that class of patients, district homes would need to be found to accommodate large numbers of pauper drunkards, and the expense would be considerable.

The majority of the patients would be able to work; a considerable part of the treatment would lie in the encouragement of their in-

dustries; and, in some cases, the work would be remunerative. But taking even the most sanguine view of the financial prospect, we must still lay our account by a considerable burden of expense which would fall on the rate-payers. I have no doubt that a far-seeing economy would sanction the expenditure as business-like and just, but the difficulty of bringing home the argument to the mind of the ratepayer is extreme. Certainly it would be hard to conceive a more clumsy and extravagant mode of treating drunkenness than our present one, but the positive gains of the new scheme are somewhat distant and speculative. The saving of money, in diminishing the work of the police court, would be enormous; but the most considerable benefit would be in the general effect of the measure on the conditions of the labouring class, and of tradesmen. Bad debts would be much diminished; labour would be improved by the withdrawal of the competition and irregular work of a low class of workmen; money paid as wages would go to men less likely to squander it; charity would be relieved of a class upon whom it now wastes at least half of its resources. But, even grant-

ing that the Act would be expensive beyond its financial remuneration, is that any argument against the segregation of a class of patients who are an offence to society, and whose case is otherwise hopeless? Is it not one of the functions of governing bodies to spend the public money on just and serviceable ends?

To give some general idea of the kind of patients to whom the Habitual Drunkards Bill applies, and the mode of treatment proposed, I cite two cases chosen very much at random from the records of Morningside Asylum. The first ("Mrs. Addle") is one of the "Phultain" family of which mention has already been made (p. 70). Both father and mother, it will be remembered, were alcoholic, and the mother insane; epilepsy manifested itself in four members of the family; two brothers are insane; another brother was a drunkard and a thief; and a sister little better than a prostitute. "Mrs. Addle," the patient, is not of that physiognomy or physique from which one could prophesy a criminal career, though her expression and manner now are weak and silly. She is, I believe, a woman who, under suitable conditions, might have grown up respectable,

and led a moderately useful life; but, obviously, circumstances were against her. She married young, but her condition does not seem to have been improved by the change. The following is a record of her police court experience :—

Convictions for	breach of the peace, -	20
„	theft, - - -	4
„	drunk and incapable,	16
„	assault, - - -	2
	Total convictions, -	42

In addition, she has been three times confined in an asylum, to say nothing of minor attacks of mental illness. Her insanity is, as a rule, brought on by excessive drinking. I leave it to statisticians to reckon her cost to the State. She is now living apart from her husband, leading the life of a prostitute, an inveterate liar and incurable drunkard, quarrelsome and dishonest. The law leaves her free to drink herself to death, and in the meantime to propagate her kind and be an obnoxious burden on society. Imprisonment intensifies

her energy for vice, and charity hastens, if possible, her demoralisation.

The second patient, "Patrick St. Clair," is a more picturesque figure. The following particulars concerning him are taken from the asylum registers :—

Name : "Patrick St. Clair."
Previous place of abode : police chambers.
Friends or relatives : none known.
Occupation : clerk, formerly a soldier.
Cause of attack : excessive drinking.

The most obvious characteristic of "Patrick's" behaviour is its variety. Sharp-witted, fair-spoken, and obsequious at one moment ; the next, he will turn and rend you. He will leave the asylum, say on a Saturday, outwardly the picture of a forlorn hope, and on the Monday he will return swaggering and gay, clad from head to foot in garments not his own, and will give as many pledges as there are pennies in the half-crown, if only "he could get a trifle to keep him going." Before Saturday has come again, he will be found incapable, and will be sheltered by some good Samaritan ;

or, nearly naked, and reciting his own poetry, he will pick a quarrel with an associate, and be apprehended for assault. He is well known at the police court, for he never appears at the bar without creating a scene and furnishing the evening papers with material for another paragraph—"The Drunken Poet Again." At first he is cringeing, and recites some tale of woe which is expected to excuse his offence and obtain forgiveness, but when the blow has fallen and "Patrick" is condemned once more to ten days imprisonment, his indignation and wrath boil over, and he calls down a poetic curse on the head of the magistrate and all concerned, or is carried out of court scattering promiscuous impertinences broadcast. He has been eight or ten times confined in a lunatic asylum, and has been about thirty times convicted, generally for breach of peace. In manner he is everything (no one can accuse him of uniform dulness), of wit he has quite sufficient to hoodwink givers of charity, and he still retains the gift of writing what the people call poetry. But he has no more stability than a kitten, and never will have it.

Now these are but two patients I have

chanced upon out of scores of similar cases in the asylum books. Probably they are now both incurable. The best that any institution could do for them would be to keep them out of mischief, and drill them to some form of work. At an earlier stage they would possibly have been capable of cure. But such cases as these, in an extremity of drunkenness, and always on the verge of insanity, represent the worst class of patients to be dealt with by the Habitual Drunkards Bill. For every one such case there are a hundred others living at large in all our big towns, and defiling every country village, whose habit is curable if we would but apply the cure. I say nothing more of the general good that would follow if we purged society of the habitual drunkards. It only remains for us to consider briefly what is necessary for the patient.

A habitual drunkard very rarely will commit himself to prolonged confinement in a restorative home. If he do so, we have nothing but his promise to rely on, and that is a shred. Under the proposed Act—"The Restorative Homes (Scotland) Act"—it will be possible for a sheriff to confine such a

patient under a medical certificate after a declaration before a magistrate by the nearest relatives of the patient, or by an interested party, or at the instigation of a magistrate. A patient so confined shall be detained for a period not less than a year. During that time he shall be under the immediate care of a physician-superintendent, or visited regularly by a physician. In my opinion, it will be necessary, in a very large number of cases, to restrict or forbid the visits of the patient's friends. But at all times, and at any hour, the home must be open to the inspection of duly appointed officials. The correspondence of the patient shall be under the control of the superintendent, excepting communications with the Supervising Board (the Commissioners in Lunacy, or some other Board appointed for the control of restorative homes), to whom the patient may apply at any time, making complaint of his treatment or for any other purpose, and who shall have full powers to deal with any such application as they may see fit. The homes must be as far as possible removed from any suggestion of a prison-house or asylum,

and must partake more of the nature of a hospital. The surroundings must be bright and cheerful, and the mode of life, so far as may be, comfortable and homely. There must be ample facilities for the occupation and amusement of the patients. A large staff of companions and attendants will be necessary, who shall be competent to carry out the treatment prescribed by the physicians, to assist in the work of the institution, and to operate on the patients' minds with a view to their recovery. All such officials shall be under rigorous discipline, and liable to heavy penalties for unkindness to the patients, for the illicit administration of stimulants, for assisting patients to escape, and for other specified misdemeanours. With a view to the development of the patient's self-control, the discipline of the house must be insisted on, regular habits shall be encouraged, suitable ethical teaching must be given, and the patients stimulated to moral effort. When his cure has reached the appropriate stage, the patient shall be given leave of absence on probation, when he shall still be subject to the discipline of the home, and liable to

be summarily recovered in the event of his failing to comply with the rules prescribed. It shall be the duty of the physician to study the individual cases scientifically with a view to appropriate treatment, and opportunity must be afforded him to contribute to the science of his subject. A record shall be kept of the mental and bodily state of the patient on admission to the home, and notes must be made from time to time concerning the progress of the case. All such records shall be open to inspection by the members of the Supervising Board, or by such inspectors as they may appoint, and shall be available for the purposes of science according to the discretion of the physician-superintendent. The physician-superintendent shall be head of the house, and have full control over every department, but he shall be liable to dismissal by his Board for incompetence or misdemeanour.

In restorative homes under such conditions as these it is reasonable to hope for the cure of a very large number of confirmed drunkards whose case is otherwise

hopeless. For many patients who are bound down by a consciousness of their own weakness, and yet have not sufficient strength of purpose to place themselves under restraint, such homes will offer the first hope of happiness and freedom, or, at the worst, afford them comfort and shelter. To society it is believed they will make the gift of hundreds of useful citizens.

THE END.

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