THE IDOL

By DR. CANTALA

OPIUM, HEROIN,
MORPHINE AND
THEIR KINGDOMS

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PREFACE

HOWEVER authorities may differ as to certain statements made in this book, they all must agree that the author, who has had a wide experience in the treatment of drug addiction, has presented his subject in an extremely fascinating and lucid manner.

Much has been written upon the subject of narcotics and much work, no doubt, remains to be done in this tremendous field. The very many angles of research medical work and the point of view of the sociologist, penologist and criminologist, though in variance in some degree with each other are nevertheless all uniting and focusing attention upon a great menace confronting civilization.

As a diamond has many facets, all of which contribute towards emanating its glow, so in similar manner are there many facets to the great question of narcotism. This book is written with an open-mindedness that commends it as a valuable document.

Carleton Simon, M.D.

From the continuous struggle with the unfortunate victims of drug addiction; of the sad nights passed beside them, allaying their suffering; of their confessions and their tears, this book came to life. It is the whole existence of a medical student devoted to the fight of that monster:

DOPE.

INTRODUCTION

THE purpose of this book is to present to the public and the medical profession the problem of "drug addiction" from an angle not heretofore attempted, that is to say, from a medico-social point of view. Until now, most authors have treated it either as a problem appertaining only to the domain of the police authorities or as a strictly technical and scientific problem exclusively within the province of the medical profession.

No one has treated the subject with a view to revealing to the general public the true facts, tearing off the mystery with which it is surrounded, exposing its ugly nakedness as warning of a danger to be avoided and fought with every means at our command. The subject has not heretofore been discussed with clearness and simplicity, so that the general public might know what drug addiction really is, what is the psychology of the drug addict, why he becomes a drug user, and what are the effects of drugs on the human system, as well as all the other phases of this pathological drama that grips the world to-day.

The general public knows there are a great number of human beings addicted to morphine, cocaine, opium and other drugs, but knows nothing concerning the origin of the habits, nor how the drugs really influence and affect the addicts.

The general public has a vague idea that the matter

is or should be under police regulation, and that is all. The purpose of this book is to enlighten the general public on the subject of drug addiction in the same way as that public is being instructed on so many other subjects, such as tuberculosis, right living, hygiene, etc. This book will take the reader through the dark tortuous streets of the world of poison and will show him the misery, the struggles and sorrows of the poison victims. These pages will impart to the reader full and accurate information about the horrors and dangers of the evil, will enable him to detect the hidden menace, the insidious temptations that are so artfully put in his way and will save him from giving way to them, as so many have done through the ignorance of the subject. The medical student and the social worker will find in this book the results of a life long study of the evil and combating thereof.

And what is perhaps equally if not more important, this book will be to the afflicted as a ray of hope lighting the way to their cure and redemption. This book will indicate to them how their salvation may be assured by a properly conducted effort, involving a better psychological understanding of their sufferings, and that in this work in their behalf such words as "prison" and "condemned" shall give way to the words of consolation—"kindness," "love," "science."

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Chapter I.
THE IDOL

FOLLOW me, dear reader, and I shall show you an aspect of life which you perhaps totally ignore, though so many speak of it. More than an aspect of life, it is a sort of new cult born of human derangement, a new Idolatry. Let me show you the Idol, the Deity of the unfortunate poison worshippers.

What Idol is it? The conception of an Idol best personifies the special poisons that man has invented to kill himself, to kill his soul, as though there were not enough soul poisons in the human world.

Let me guide you through the haunts of the drug vice and show you its victims in the grasp of their dread habits. There it is towering above them the Idol, worshipped with their furious fanaticism. Its name may be Opium, Cocaine, Veronal, Valerian, Ether or any other one of similar words, that have been and still are pronounced reverently by medical men.

You shall see how men and women are laughing as they play with Death. You shall see "Nature," "God's" masterpiece, scoffed at. We shall see the spirals of opium smoke, the syringe drug filled and the needles which pierce the skin to inject the poison into the human bodies.

You shall see how the hasheesh cigars are rolled, and how the cocaïne is absorbed. You shall see how veronal is drunk and valerian chewed and how all these poisons are employed under the impulse of a human frenzy. Mankind in its progress towards perfection has always found obstacles in its way, becoming more and more difficult to overcome. Some are Nature's own obstacles, others are the product of man himself, of his vices and of his passions. With the evolution of the superman there will come into the world a superior, more refined form of self-affliction proportionate to him, a form that we cannot now conceive. Everything points to this. From Biblical times to the present we see man poisoning himself with alcohol, with tobacco, with alkaloids. The future may find him discarding these for other poisons, other forms of debauchery, that we do not dream of today. He may then get his intoxication from radium or electricity. Who knows?

The nervous cell today is rudimentary compared to what it will be two thousand years from now. Man has always had an Idol and within every human being there seems to have always been a disposition to pay cult to some poison. Man is a born addict. Tobacco, alcohol, medicines, diseases, temptations, despondencies awaken the dormant tendency.

The Idol appears and drug vice begins, a vice that shall be really classified as a disease. As microbes

will develop within the healthy body, so can the disposition to drugs be aroused.

The Black Idol
OPIUM

Opium is the origin of drug addiction. Chinese legends refer to opium as the first monster from which other narcotic drugs have sprung. Opium reigned in the earliest history in the Orient and spread later by way of the Red and Mediterranean Seas into the very heart of European civilization. The colonial enterprises of certain empires helped in its dissemination, the drug being brought by the soldiers and sailors of France, England, Portugal and Holland.

Men in the numerous expeditions sent out by the mother countries to the Eastern Colonies, returned home inoculated with the opium habit. Opium paved the way for other poisons to attack the human race and thus began its labor of destruction.

The history of Opium is very ancient. The Odessy speaks of it as of a very remote origin. Hippocrates mentioned the juice of the poppy, so does Theophastrus in the third century B. C. Themison mixed it with honey and called the mixture "diacodion." Andromachus concocted the "Triarca," which merited a book by Galeno; and Alexander of Trelles, speak-

ing of opium, calls it the "marvelous medicament." Paracelsus praised it in the Middle Ages. Van Elmont and Silvio Le Boe studied it, but only in 1817 were its properties finally discovered by Sertuerner, who found Morphia in it. Undoubtedly, it must have older historians in Asia, where legend has raised it to the dignity of a Myth.

Opium is a hypnotic or narcotic drug obtained from the juice of the plant that produces the poppy, that familiar flower that gives its touch of color to the yellow fields of wheat. There are several classes of poppies: red, black and white. The white poppy whose scientific name is *"papaver somniferous album,"* is the variety that contains the strongest opium. The others have hardly any hypnotic power. In America are found two classes: *"eschoholtzia californica"* and *"argemona mexicana,"* both containing opium of very slight strength. The best opium, that is to say the strongest, is obtained from the white poppy of Persia, the fruit of which exudes a substance in drops or pearls that was given by Plinious Secundus the name Opium. The plant is cultivated chiefly in Persia, Turkey, India and China, and of the several varieties the richest in alkaloids is the one known as Smyrna Opium.

The hypnotic effect of Opium is in the alkaloids, which it contains, more than twenty in number, such

as Morphine, Codeine, Narcotine, Narveine, Papaverine, etc. But of all the Opium alkaloids, Morphine stands above the others and can be trully called the Soul of Opium. Morphine combines the basic properties of Opium from the drug addiction point of view. Without this alkaloid the scourge could hardly exist and even the smoke of opium would be almost innocuous.

The value of opium is measured by the quantity of morphine which it contains.

This varies from ten to fifteen per centum, according to the plants and methods of production. Generally the medical dose of opium for an adult is ten centigrammes, containing an average of three centigrammes of morphine. The proportion is therefore three parts of morphine to ten of opium. This explains how the opium addicts can take doses of twenty centigrammes of opium as frequently as ten and fifteen times a day. Moreover, the greater part of opium consumed by addicts is never pure and seldom contains more than five to seven per centum of morphine. The impure product is generally mixed with other harmless substances presenting the appearance of a semi-liquid extract, brownish in color, like chocolate. It is sold among addicts in elegant metallic boxes, as an exquisite jewel of great value.

To understand and study the effects of opium on the human system, its effects should be observed on

normal individuals, unaccustomed to the "habit," as the poison acts altogether differently on inveterate addicts. When administered in normal doses to non-addicts, it produces three principal effects. First it deadens pain no matter where the place and what the cause, inducing the patient to sleep; secondly, it acts on the mucous membranes, especially of the digestive and respiratory organs, diminishing their secretions and, thirdly, it produces disturbances in the blood circulation, notably in the vessels, that feed the skin, hindering perspiration and elimination. The action of opium consists essentially of these three effects, which cannot be produced individually. On the other hand, they are not constant. The calming properties, which are the most notable, do not always appear and the drug sometimes produces the contrary reaction.

The effects of opium on addicts are identical to the effects of morphine and will be later described in the chapter devoted to morphiomaniacs. The treatment is likewise identical. Opium has two principal classes of addicts: the smokers and the eaters of opium. Those of the first class are the most numerous and are the classic opium fiends.

We shall now study the two aspects of the Opium Cult: inhalation of the smoke passing into the lungs, and injection of the drug by mouth into the stomach.

The Paraphernalia of Opium Addiction

The Opium instruments: the pipe, the needles and the lamp, all indispensable to practice the cult, and in the handling of which such a degree of skill is attained as only addiction to a vice makes possible.

The common belief among the uninitiated is that opium is smoked in the same way as tobacco. Only with the above named implements is it possible to indulge in the oriental craze.

The pipe is a tube similar in its exterior to a flute and fifteen to thirty centimeters in length. One end is held in the mouth; at the other end is a small metallic disk applied to the lamp. In the Orient, the pipes are made of clay or from bamboo cane, but in Europe and elsewhere, among the wealthy, they are found in rich and costly woods, expensively adorned with amber and mother of pearl. The pipe is a most precious jewel to the opium smoker and is kept and cared for with fanatic zeal.

The pipe on account of its size, is not easy to carry or to conceal. Privacy, solitude and repose are necessary to the enjoyment of its delights. That is why the small syringe, with which the poison can be injected into the blood is such a favorite with the worshippers. It may be easily hidden in a vest pocket. This is also why opium slowly but surely drives its victims to morphine. The pipe is moreover an old-

fashioned and primitive instrument, proper to the indolent life of the Orient. The syringe is a scientific instrument in keeping with the progress of our modern civilization.

The needles are two small metal bars like matchsticks. They are of silver, gold, platinum, or common steel, and are used for feeding the pipe with the drug which is shortly to change into smoke. The drug is picked up with the needles, is heated on the lamp and when ready, is placed on the end of the pipe, ready for smoking.

Opium does not burn like tobacco which needs to be puffed intermittently to continue burning. Opium must be constantly brought in contact with the flame of the lamp in order to be converted into smoke. That is why the lamp has so important a place in the ceremonial of the Cult. It is the source of the Sacred Fire, the means by which the solid brownish looking substance dissolves into smoke, glorious smoke, ethereal, divine, yet treacherous and terrible, with its harmless looking delicate spirals that carry the deadly morphia, codeine, narceine, papaverine into the lungs of the addict.

The Opium Smoker

The worst ravages of opium in the world are produced by the smoking of it. Opium smoking was the precursor of drug addiction in all its forms,

numerous as the different poisons the drug contains. The classic drug fiend of oriental legends, that pale looking individual of the yellow and Mohammedan races, is an opium smoker, who becomes gradually poisoned with the drug as the cigarette smoker does with nicotine. The smoke in passing through the lungs impregnates the tissues with the alkaloids, especially with morphia.

The acquiring of the habit is far from agreeable. The aspiring proselyte is clumsy, does not know how to go about it, burns his fingers, often his mouth, and is subject to nausea, violent vomiting and other disturbances far from encouraging. Yet in spite of it, numberless victimes are attracted to the shrine, anxious to fathom the mysteries and hidden ectasies of opium, promised by its propaganda, especially the world literature on opium that has flourished in England and France.

Acquiring the habit is not an easy enterprise either, and cannot be undertaken alone. It requires generally the guidance and assistance of a veteran smoker. Let us see how he uses the drug.

The smoker generally adopts a recumbent posture lying on the right side. Within easy reach is a tray, on which are the pipe, the jar—containing opium, and the alcohol lamp and two needles.

He takes one of these in each hand, introduces

them into the jar containing the drug and takes out a sufficient quantity, five to ten grains. The opium sticks to the needles. He then applies them to the flame and manipulates them till he makes a little ball or cone of the drugs, which he deposits on the metal disc of the pipe, exactly over the small hole in the center of the disc. The pipe is now ready. He brings the flame near so as to burn the opium continually and starts smoking, inhaling deeply. One, two, three, four puffs and the little ball disappears. It has been converted into smoke and removed from the metal disc to the lungs of the smoker. The Idol has penetrated the human body, and the whole operation has taken but a few moments.

How many doses or smokes can an addict have a day? That depends on the degree of intoxication at which he is. At the beginning one, two, or three doses are sufficient to produce immediately the effects of the drug. In the advanced stages, the addict can take eight and ten doses or smokes at a time, three or four times a day.

Opium smoke has not an agreeable odor, and can be detected at once in a place where people have been smoking it. Even the ventilation does not eradicate it altogether. The cumbersome utensils necessary to produce it, as well as other details rarely unobserved by those familiar with the drug habit, make it relatively easy to discover the addicts. The indulgence

and preparation take time and the whole ceremony requires a special room or place to practise it. All of these facts combine to drive the opium addict in the large modern cities to morphine, as a far more comfortable and practical indulgence. Today, even in the Orient, opium addicts are becoming scarcer, swelling however the number of morphine addicts.

The Opium habit is very expensive, much more so than the cocaine or morphine habit, and is only within the reach of the wealthy. This is still another reason for the spread of morphiomania.

The Effect of Opium

The effect of Opium smoke on the human organism can be divided into two periods: the period of lassitude and the period of sleep.

Period of lassitude.

The period of lassitude begins immediately after the smoke enters the lungs. Its symptoms are a general stimulating, a slight ringing in the ears, a dryness of the mouth and drowsiness, which symptoms last from five to twenty minutes and gradually disappear, giving place to a pronounced lassitude. The sensation of lassitude is marked by a feeling as of a weight on the brain and eyes and pleasant tickling along the spine, arms and legs. The respiration becomes quickened and the individual is hardly

able to move. It is while the body is in this condition that the brain evolves in rapid succession most extraordinary visions or illusions, and sensations of well being, which completely overpower the smoker.

This is the characteristic period of opium smoking. It should be noted however that it is yet far from the sleep effect of opium, and that during this period of visions and illusions the smoker is wide awake. The period varies in duration according to the individual degree of intoxication. It is longer when the drug is first used and disappears almost entirely after a time. In advanced cases of intoxication sleep will follow without any of the symptoms of the lassitude period. All that the smoker experiences is a sense of soreness after which he falls asleep.

The Sleep of Opium or second period.

It is a mistaken belief that the "artificial paradise" of opium comes during the sleep. I have already stated that the "period of lassitude" is an actual excitement of the brain developed in a feeling of well being, as if the life of the smoker belonged to a world of supernatural delights. Immediately after this period of sensation comes the sleep, which is the most important effect of the drug. It is an abnormal sleep, unpleasant to watch, far more so than the one produced by alcohol intoxication and more tragic than the sleep produced by chloroform.

The opium sleep following the period of lassitude,

has two phases, the "light" sleep and the "profound" sleep. The first one is marked by great depression, immobility and the disappearance of the previous symptoms of cerebral excitement as well as of the visions and illusions. It is a sweet sleep, bordering almost on wakefulness, and accompanied by retardation of the pulse and breathing, paleness of the skin and slight though general insensibility. The subject will answer rather vaguely if he is questioned, the artificial paradise has almost vanished and a general lethargy of the muscles and the senses has supervened. This condition lasts only a few moments and the subject gradually subsides into a profound sleep, the real narcotic action of opium, losing all tract of sensibility.

At the beginning of the habit the sleep is longer than in the more advanced stages of the habit, and seems more normal, but as the habit increases, it developes a pathological aspect, that shows in the face all the signs of depravity and pain.

This sleep, so far removed from the normal revitalizing repose, is a sort of artificial drowsiness caused by an excessive flow of blood also observed in intoxication by alcohol and other intoxicating substances, which likewise inflame the brain. The same phenomenon occurs with other kinds of poisoning, complete immobility of the body, the heart losing its

energy, the pulse becoming weaker and cold perspiration ensuing.

In this state, the opium sleep proper, the addict is wholly insensible to what happens around him. To wake him it is necessary to shout at him and shake him vigorously as with alcoholic subjects.

The duration of sleep in an opium addict in this stage of intoxication is from ten to twelve hours. On awakening he feels greatly fatigued as though he had been making violent physical efforts, and his face bears the lines of mental and bodily fatigue. After sleeping twelve hours he is not less tired than when he fell asleep. This can be readily understood, as during those long hours the poison has been acting on the brain, congesting it, as well as on the liver and kidneys.

After sleeping profoundly, the opium addict is subject to a general malaise. His arms and legs feel heavy. His head aches. And he very often has fits of nausea and vomiting—his condition is quite the reverse of what it is after awakening from normal sleep. His mouth is dry and bitter, and the mucous membrane of the eyes and of the digestive and respiratory organs are also dry. The drowsiness is such that his one desire is to return to bed and continue sleeping, the subject being wholly incapacitated for any muscular effort.

Mentally, the addict, after the narcotic effects of the drug are over, finds his brain torpid, incoherent, with only an unconquerable desire to sleep.

Morally he experiences a feeling of dejection, and deplores his weakness and slavery to the drug. This remorse is peculiar to addicts in general. The remorse is sincere and overwhelming; they detest their folly, their lack of will power and character; they curse the day of their initiation to the drug, and resolve to free themselves from the clutches of their tragic Idol. But all to no avail. A few hours later they go back to the drug, with an irrational fatalism.

In the clinical study of the sleep of opium the following factors must be kept in mind.

The subject's sex, because in women the sleep is more profound, and of greater duration, the period of excitement more marked and nausea and vomiting are much more common than in men, who are more disposed to urinary disturbances. Age, as the sleep is much more intense in youth; the subject's pathological condition of the intensity of the sleep depending on the degree of good health.

The time of day, it being observed that the sleep is more profound at night and during the hours when the addict is in the habit of sleeping normally; and lastly, but most important of all, the degree to which the habit in intoxication has advanced; when the habit becomes aggravated, the sleep becomes more

abnormal, it being in advanced stages so irregular that more than two hours may be required before the victim falls into the real opium sleep.

The sleep of opium must be studied medically, otherwise it is easy to lapse into the fantastic and literary, thus getting away from the facts. The lure of opium is not in its sleep, but in the period of lassitude, there is no sensation of pleasure, no beautiful dreams or illusions; writers who have sung the ecstasies of the sleep of opium have either not known or not adhered to the realities.

The agreeable sensations are experienced in those brief moments of lassitude. As the habit progresses and probably after the first two months they disappear altogether. I shall explain later, when dealing with Morphia, the poison becomes purely an element of vital necessity to the addict's organism and loses all the attendant beautiful or ethereal sensations. The only effect it then produces is one of artificial energy, followed by the lethargic or opium sleep. It is therefore wrong and, in its consequences criminal, to describe the sleep of opium as filling the mind with dreams of untold beauty and pleasure and to envelope it in mystery and fascination, as is often done by leading writers. The opium addict when he sleeps under the drug, is just a dull insensible animal, incapable of any such mental activity as the alleged dreams imply.

The perusal of the lines just written will doubtless surprise the reader. He probably expected that the scientific description of the opium sleep would accord with the gorgeous picture which he had in mind of ineffable ecstasies, of wondrous visions of beauty, of sensations beyond the normal perceptions. I have torn away the veil of deception and shown the monster in all its ugliness so that the reader may realize instead, what objects of pity are its unfortunate victims. Anything else would be false and so it is to deify the poison, and bear in mind that to disguise the truth, and hide the horrors of opium with beautiful words, is a veritable criminal act.

The Opium Eaters

Another class of opium addicts comprises those who take it by mouth, either in the form of pills or tablets, or in infusions. Addicts of this class are known as opiophagi—or opium eaters. This form of opium consumption also originated in the East, especially in Persia where opium eating is a common custom. In early times there were scarcely any Persians of quality who did not take a tablet of opium every day. Ordinarily a tablet in the morning and another one in the afternoon were taken in tea or sweetened water, which habit was practiced in the belief prevalent in that country that opium in small

doses preserved health and lengthened life. Opium eating has also spread among the Europeans particularly in England, where the number of opium eaters has increased fourteenfold in the last forty years. Opium eaters as a class are opium smokers who for one reason or another are prevented from using their pipes. I believe that few addicts in a position to smoke opium unobtrusively would ever take it by mouth, because the effects of the drug when taken by mouth are less productive of exalted fancies than when the drug is inhaled in the form of smoke. I have kept records of opium eaters, which are very interesting and of great medical and social value, and by way of illustration will cite a few.

One is the case of a salesman who, dragging the ponderous chain of his opium vice, travelled through South America. It seems that while going over the high plateaus of Bolivia his pipes were accidentally broken, leaving him in the depths of melancholy.

In desperation and finding himself obliged to use the drug in different forms, he finally discovered that the effects most similar to those of smoking could be attained by drinking infusions of the drug. The subject himself told me of his case. He suffered from rheumatism and asthma, resulting from the exigencies of his trade which required him to sleep in the open, exposed to the frozen winds of Tierra del Fuego and under the scorching sun of Brazil and Ecuador.

His pipes and opium were to him constant companions upon which he depended for spiritual sustenance in his weary journeys, and for surcease to the anguish of his rheumatism and asthma. In Bolivia, as above related, he acquired the habit of taking the drug in infusions, drinking it in cupfuls containing from 10 to 15 grains of opium before and after meals, much the same as tea or coffee is taken. Frequently he would take as many as 15 or 20 cupfuls a day. The intoxication increased apace, particularly affecting his digestive apparatus and kidneys. I received reports from him for some time, informing me that he was having to increase the dose daily and finding more and more difficulty in accomplishing his work. Then after a period of three months, during which I did not receive any letters from him, I learned that he had died at Santiago, Chile.

Another interesting case came under my surveillance a few years before the Great War, when I was surgeon on some of the large ships of the Pacific Navigation Company carrying emigrants from Europe to South America. I met with numerous cases of drug addiction on those ships, but the most notable was that of a wealthy Argentenian planter who ate opium mixed with cocaine powder. He was in the habit of rolling the mixture into little pellets which he always carried with him in a handsome cigarette case of gold. He always went about with

a pellet or two in his mouth and, curiously enough, in his nostrils. I was unable to get the clinical history of this subject, having lost track of him after the trip across.

I shall cite another case which I observed on one of my voyages as ship's surgeon—the case of a young German woman, a circus performer, comely and with every appearance of good health. Her specialty consisted of a dance which she performed with serpents in a cage of lions. She confessed to me that before entering the cage it was her custom to take several tablets of opium and three or four sips of ether. On the trip I had occasion to watch her take the drug several times, especially on evenings of festivities or dances, which she attended in a state characteristically disclosing her addiction to the drug.

Most addicts of the class here discussed take the opium not in its pure state but mixed with other substances such as sugar or licorice powder. The preparation of the drug in this manner is very simple; mixture being rolled into pellets which vary from 1 to 2 grams and have a pleasant taste.

The effects of opium when taken by mouth are not produced as quickly and are not as marked as when smoked. In order to experience the same sensations as those derived from the pipe, it is necessary to increase the daily dose one-third. Moreover, the effects are not as invigorating, so that the period of lassitude

is not so often accompanied by visions and hallucinations.

Opium taken by mouth in small doses is not as destructive as other drugs, and it is possible to withstand the intoxication for many years, the visible effects being an anaemia disclosed in paleness of the epidermis. But in the large doses the drug may prove disastrous, among other reasons, because of its direct action on the digestive tract and kidneys. All drug addicts are afflicted with intestinal paralysis, but opium eaters are more susceptible to this condition, which is the principal cause of the aggravation of their intoxication and frequently of their death.

Few cases of opium eaters are ever observed. The opium eater remains in this class of drug addiction only for a short time, soon falling into the clutches of morphiomania in his quest for a stronger intoxication. For this reason when the subjects finally resort to medical treatment, most of them are morphiomaniacs and not opium eaters. Medically, the most frequently encountered addicts in this class are those who are primarily opium smokers and who are driven to opium eating by circumstances which render it difficult or impossible for them to smoke, opium eating being a vice which may be more secretly indulged in. Opium eating requires the consumption of very much larger doses than does opium smoking,

but it is devoid of the peculiar attraction which the addict finds in the smoke.

Racial Resistances

The action of opium on the different races manifests itself in different ways. Of course, no race is immune from the fatal consequences of the drug, but some races seem to have a greater resistance to its destructive work, than others.

The negro race is the least resistant, but on the other hand is the least inclined to the drug habit. The recorded cases of drug addiction among negroes are few as compared with those among the yellow race. All of the negro drug addicts who have come under my personal observation have impressed me with their low organic resistance to the drug. I recall especially the case of a negro chef on a German sailing vessel, whom I treated while in the Bay of Pernambuco for a small injury which he suffered on board. He was a young man, strong, virile and organically sound. When I next ran across him in a European port, I found him in a lamentable state of emaciation and physical debility. The unfortunate man confessed to me that he had been addicted to opium for ten months, in which short space of time the drug had brought him to the lowest state of bodily degeneration. Another case is that of a negro maid servant who,

contaminated by the opium habit of her mistress (a patient of mine), had also fallen a prey to the habit. This young negress had been smoking opium for only two years, and yet I found her in the most advanced stage of intoxication as though she had been using the drug for many years.

The treatment of this case was very difficult by the weakened state of the patient and the many complications which had set in.

I have witnessed many cases like the foregoing, all demonstrating the low resistance of the negro race to opium, although as already observed, drug addiction among individuals of that race is very limited.

The white race is more resistant to opium than the negro. A white man may live under the influence of the drug for as long as ten years, provided the dose be within bounds and the organism of the subject be normal, without lesions or diseases. Many white addicts do not show the slightest external signs of intoxication for many years, until there comes a moment when the organism gives in—so to speak—in its fight against the drug, and the subject dies within a few weeks from the inroads of the Idol.

During the first six months of the intoxication more symptoms manifest themselves than after that time. It seems that the organism at first protests against the drug, but that after that time the organs become accustomed to the poison and there comes a

sort of equilibrium in the bodily function as though the drug were being more readily assimilated, than in the early stages of intoxication.

The yellow race is without doubt the most resistant to the deadly action of opium. Among the Chinese there are remarkable examples of such resistance, as though the drug, after acting on so many generations of the yellow race, had imparted to it a sort of hereditary immunity.

I remember the case of a Chinaman in Antofagasta, Chile. He was a man of senile aspect, with very low organic function. I found him to be a most notable example, however, of organic resistance to the drug, for I learned that he was seventy-five years of age and had been smoking opium since he was eighteen. Cases like this, in my judgment, can only be found among the yellow race. I do not believe a white man could ever withstand so prolonged an intoxication, even under moderate doses and proper regulation of the intestinal and kidney functions.

However, this endurance of the yellow race does not justify the legends and literary descriptions so frequently encountered of the life in the Orient, which would make it appear that millions and millions live a life of bliss devoted to smoking opium. This is only the element of color with which the authors draw their pictures, but nothing is said about the lamentable misery and tragedy of countless human

beings who pass away unnoticed or live a wretched existence like so many repulsive reptiles.

It is not in the works of fiction of European or American authors that the drama of opium addiction should be studied, but in the poverty, diseases and degeneration with which the Orient is afflicted through Opium.

But this difference in the coefficient of resistance to opium of the different races, however interesting, is hardly a subject of primary importance in the universal and human problem of opiomania.

Opium Intoxication

Let us see how the Idol grips its victim, the human body, entering stealthily either through the lungs or stomach and slowly gnawing the very vitals of moral and physical life. In the destruction wrought by the drug there is a marked intoxication, that is to say one having two different effects, the one moral, the other organic. A consequence of the first is the mania for the drug which turns the addict into a different individual, altogether distinct, in his morals, in his habits, his thoughts and every other manifestation, making of him a typical drug addict. The organic intoxication has, as a consequence, through the direct action of the alkaloids, the physical disturbance and degeneration of the life functions.

The opium intoxication is very interesting and complex, altogether similar to that of morphia, for which reason I shall speak of it in a later chapter. I shall there dwell at length on the psychology of the addict and the disturbances produced in the system. I may say right here that the opium intoxication is slower and the final collapse less sudden than with morphia. In the opium addict the lesions are not so serious as in the syringe addict, although the disturbances which finally cause death are identical.

And now, dear reader, I shall lead you on through the hidden paths of this hideous vice and show you horrors that you may have never imagined. I have shown you the shrines of the drug worshippers and will take you to one of the shrines, where men destroy their own lives. Similar shrines may be found in all lands.

I have visited them in London, Paris, Nice, Naples, Barcelona, Cairo, Constantinople, Port Said, Buenos Aires. The Cult is universal, far more fervent than what was ever vouchsafed to any religious creed, even by the intolerant monks of the Middle Ages.

CHAPTER II

THE TEMPLE OF THE IDOL

IT IS in Paris, the City of Light, the gathering place of the world, with all its eccentricities and follies. All the wealthy pleasure seekers go to Paris from all parts of the world. Science and art from the four corners of the globe have chosen it as their clearing house, and from that atmosphere of refinement and vice present-day civilization has sprung. Paris is the emporium of modern thought, but it is also the center of universal tragedy.

Montmartre of Paris, the district of cabarets and restaurants, of dance halls, of exotic theatres, and dens of pleasure—is also the centre of the drug vice. Every tourist that visits Paris visits Montmartre. There he will have dinner in one of the quaint restaurants, hear the music, witness a theatrical performance, step into a cabaret and lose his composure for a while, drink champagne, and live for a few hours in the heavy atmosphere of a thousand follies. It is in this district that the Idol has thousands of worshippers.

Let us enter a cabaret. The orchestra plays, the crowd dances, eats and drinks. In the fantastic whirl, women in decollete, the professional beauties, go to and fro. Other women remain seated watching passively the thousand and one eccentricities. One of these women especially attracts our attention. Her pallor, her brilliant, though unexpressive eyes arouse

our suspicions. Absent-minded she sits sipping champagne from the delicate baccarat glass, smoking cigarettes in a distant reverie. Her elegance and bearing mark her as a woman of distinction. Her melancholy, her statue-like indifference and rigidity tell us she is a morphine addict. She appears to be asleep with eyes wide open. If we observe her she will show us how the Morphine-Idol is worshipped in the cabarets of Paris. Let us not lose sight of her. She will remain seated where she is probably for two or three hours, motionless, detached from the surroundings, absorbed in her own thoughts. Presently she will rise, pretending to fix her makeup. We shall see her disappear into an adjoining hall. All about the room are feminine articles—mirrors, brushes, perfume bottles, everything appertaining to a beauty parlor. An old lady is in charge. The visitor will ask her to help her fix her hair or to put a drop of atropine in her tired eyes and then in a low voice ask: "Dear Mama, what is a gramme of Morphine worth today?" The old lady then informs her that it is very high and that the stuff she has is real, pure, and not mixed with sugar of milk or sulfat of magnesia as it is in other places. The visitor orders a bottle of the drug and requests that she be given an immediate injection as she is unable to inject it herself. Her wishes are complied with fifteen centigrammes; the old lady producing the fatal syringe, dissolving the tablets in warm water, taking the dose and injecting it into the leg of

our beautiful customer. For a few moments she remains motionless, then her face livens up and a brilliancy begins to show in her eyes. She is herself again. A touch of rouge to the lips, a dab of powder, and full of joy and animation she prances out through the same door and enters the cabaret, joining in the mirth and dancing of the crowd.

And now we see an elegant and well dressed man leave the cabaret and go into the street, nervously, anxiously, looking for an empty taxicab. He is sure to find one, for the drivers are ever on the lookout for the passengers leaving the cabarets. He looks about suspiciously, for he does not want to be seen. Before entering, he softly murmurs to the chauffeur: "Take me through a dark street and drive slowly. I shall tip you well, you know." "Be assured, sir, nobody will see you. Just knock on the glass when you want me to stop." And off goes the taxicab. It will not go very far before the passenger orders the driver to stop, while he sends the poison into his system. He dries the needle, puts it back in his pocket and returns to the cabaret full of energy and mirth.

In one of the "cafes," that typical European institution where people gather for pleasure and enjoyment and to transact so much of the business of life, we see all sorts of people sitting about around the numerous small tables. In a corner two men and two young women, all speaking in low tones, now and again turn their faces away as if to sneeze. One of

the young women takes from her hand-bag a little gold case studded with diamonds and takes a pinch of white, crystalline powder and snuffs it. It is cocaine. She passes the beautiful little case to her companions. See them repeat the snuffing, two, three, four, ten, fifteen times. Between times, the liquor goes around. Benedictine, absinthe, ment. Later in the night, we meet the two couples, arm in arm, pale and livid, with tearful eyes, colorless lips, walking uncertainly as if intoxicated with alcohol. Something in their faces betrays them. Their nostrils glitter with the transparent crystals of the poison.

In another cabaret, jazz and the tango share honors. The excitement and noise is the same as elsewhere.

In one of the boxes, among the spectators, a man stands up shouting, making gestures like a madman. He bounds, like a wounded beast half mad. His eyes, open and fiery, are terrifying. The maniac has lost control over his acts and starts to upset tables and break glasses and bottles, gnashes his teeth and bites whoever dares to touch him. Then suddenly he quiets down. It is the depression produced by the drug. He no longer roars, he weeps like a child and trembles with fright, hiding his eyes as if to shut out horrible visions. He has been smoking *hasheesh.*

Places where drugs are taken individually are numerous in Paris. Generally, they are places of amusement, where alcohol is freely indulged in, which leads

the uninformed to shrug their shoulders at the sight of any queerly acting visitor, with the remark: "Too many cocktails." Montmartre is full of such little temples. Of course, all dope is forbidden by the laws, but to no avail.

The real "Temples of the Idol" are secret and secluded. In them the worshippers of Morphine congregate in great numbers. There is no dancing or music there, and the ceremonies take place with great solemnity. It is difficult to gain access to such temples. Such access can only be had through friends and under extreme precautions. These shrines are identical everywhere, in Alexandria, in Naples or in any other large city. Only the degree of luxury varies, from the humblest and poorest enclosure within four bare walls and only wooden chairs to sit on, to gorgeous halls of Oriental splendor. But the Cult is the same in all—the worship of Morphine.

We shall visit one of these shrines of the rich, on the outskirts of Paris. A wealthy devotee will take us there in a car. We will have to ride through the wonderful city, through her grandest and her most miserable quarters, through wealth, through poverty, through civilization and through sloth. Going through the various sections of Paris, one cannot but reflect on the causes that have given birth, in European centers, to the morbid spiritual disintegration of the European races. Europe is tired of life. Europe is feeling old and its inhabitants are morally worn out.

Health and the desire to struggle are not there. Ambition is dead and the field seems to be favorable only to the germ of the Vice. Hope is no longer there, it is across the ocean. The land of hope is America, the land of youth. Europe is old, skeptical and cynical.

The car has stopped in front of a large though unpretentious building. Our friend is well known to the "concierge." Crossing a yard, we enter through a garage and find ourselves in a spacious hall, richly furnished, a thick carpet on the floor and large Turkish cushions strewn about. The hall is dimly lighted and on small black ebony tables are silver trays wrought and chiseled in strange designs. Sitting or lying on the cushions on the floor are about twenty people, smoking silently and drowsily from pipes. The hostess, an elderly woman, crosses the room with a tray carrying the fatal dose to her customers.

Most of the drug worshippers are women between thirty and forty years of age. The rest are young men, a few merely boys. All these addicts are already in an advanced stage of intoxication and frequent such places because they do not have in their homes the necessary facilities and comforts for smoking. They are inveterate dope fiends. Now and again a newcomer is admitted who through curiosity wants only to see what Opiomania is like.

It will not take him long to repent his curiosity. Although it may be too late to escape the Idol.

It is commonly thought that dope fiends come to

these places to indulge at their leisure in the sleep produced by the drug. This, however, is not so. The majority remain there only the necessary time to smoke their numerous pipes, and then go home to enjoy in their own beds the artificial sleep of opium.

In the opium underworld it is interesting to observe not only the addicts but also the proprietors of the vice dens. As can be easily imagined, they are people devoid of every vestige of moral principle, all unscrupulous beings of the shrewdest type, capable of the boldest and most atrocious deeds. What makes them so is the impunity with which they can work, protected as they are by their own victims, many of them powerful and influential personages who can go to any length in keeping the smoking halls surrounded by the strictest secrecy. The places are generally in charge of elderly women, most of them well educated and refined, models of perspicacity and discretion.

Access to these Temples is only for the rich and for the artistically inclined who enjoy the protection and friendship of their wealthier associates. Order is strictly maintained and no scandals allowed so as not to attract the authorities. The stories of crimes perpetrated of them are wholly untrue. Only in certain larger cities, like London, Naples and Alexandria are to be found the classic opium dens frequented by criminals and rogues, where prostitution, morphine and other crimes alternate with one another.

No drug addict will ever give himself away before

strangers, but in the presence of other addicts, even though they be entirely unknown to him, he will have not the slightest timidity about disclosing his addiction. A peculiar brotherhood seems to exist between addicts—they are bound by a tie, which in spite of the physiological and psychic pleasure involved, is a bond of misfortune. That is why a wealthy addict will extend a helping hand to a poorer fellow addict in all possible circumstances.

Addicts have also other ways of getting together. Some gatherings take place in the homes of addicts, where fellow-addicts are invited to tea. The party begins as with normal people in every respect. Little by little the social atmosphere of the gathering changes. The host or hostess will in the most natural manner bring out the pipe and offer it to one of the guests, whereupon adoration of the Idol commences. The expression and bearing of the worshippers change, acquiring a serious, solemn trend. Lamps, syringes and needles are brought in, and conversation turns to glorification of the Idol. Discussions ensue as the drug doses, the effect of the poison according to its action on the different individuals present, their sufferings and their social status, their future welfare, the measures and persecutions contemplated against them and other such matters concerning life in their special world of dope.

It is here that they may be studied to advantage and really understood from the medical and social stand-

point. It is here that they will show themselves as they really are, stripped of the dissimulation to which they are constantly forced. Their brotherly sentiments toward each other are here shown and how eager each is to help the other. If one has been unable to procure the drug, the host will immediately provide him with several doses. It is remarkable what honesty and punctiliousness prevail in their transaction, for commercialism, profit and exploitation do not concern them. Men and women are alike, the distinctions of classes and wealth disappear, they are but addicts, morphine and opium worshippers, come to pay adepts of the Cult to the Idol. Sex loses its disparity, and men and women mingle without manifesting any of the distinction that exists in normal life.

In most of these homes every member of it is an addict, the servants, the porter, the chauffeur, included, and I have known of an instance where even the dog would come in for his injection of morphine. Against such an institution, if one may call it such, stronger than any religion or affinity of mind, social or police persecution must be unavailing. In a sense it encourages the vice, by developing infinite resources, shrewdness and means of counteracting such persecution. Addicts have become more cautious and their ranks increase because they must live by and for the drug only.

CHAPTER III

THE WHITE IDOL

MORPHINE

WE HAVE already made the acquaintance of opium and know something of its deadly work. We have seen the lives of its addicts and the haunts where it is worshipped. We have seen how its unfortunate victims absorb the terrible smoke. We still recall the hideous smell of the opium smoking dens. Each delicate spiral that is inhaled from the lungs of the victims carries with it a year of human life in every ripple. The small pyramidal cones of the drug with which the pipe is fed are to me a scourge to mankind. Accursed opium. Opium is not alone in its labor of destruction and evil. It has its derivatives, as terrible, and perhaps more so in their effects. These derivatives are called alkaloids and opium has a great number of them. I shall describe only the most important: Morphine, Codeine, Heroin, Papaverin and Narceine. These organic drugs, though invaluable for medicinal purposes, have been prostituted and turned into instruments of vice. From the point of view of drug addiction the most interesting are Morphine and Heroin. The other drugs offer less interest in the scope of this treatise, since drug addicts do not use them.

Morphine has the most addicts. This is the drug that today is finding its way into every stratum of

society, destroying human beings by thousands, nay, by the millions. It is more disastrous in its physical and moral effects than either cancer or tuberculosis. Morphine is invading the world and has addicts in every country on the globe. The number is constantly growing. Up to the present time the vice was restricted to the wealthy and higher classes of society. But today no class of society is entirely free of it.

Morphine, as already pointed out, is an alkaloid of opium. It is a white powder similar in appearance to common talcum powder and is generally compressed into small cubes of the size of dice or into tablets. The majority of addicts use the latter form, because it is easier to carry, to make solutions and to measure the doses injected into the body.

Morphine is one of the drugs that have rendered the most useful service to medicine. It can be truly said that it is the only really effective weapon against pain. On the other hand it is killing thousands who for different reasons have become habituated to it.

This is why I have always endeavored to keep my patients away from it, urging them under all circumstances to resist pain, however great the physical suffering, rather than take the first dose of such a treacherous drug. One or two doses taken, when suffering pain, will of course not have any ill effect on the human body. However, the patient will always remember its effects, however faintly, and who knows but what that memory may later awaken in the pa-

tient the inclination or desire that will lead him to drug addiction. Avoid, therefore, any acquaintance with morphine. In another part of this work, in describing the causes of morphiomania, I shall endeavor to prove that if this advice were followed there would be fewer victims of the drug.

I believe it the duty of every woman, as mother, as wife, not to forget this advice and always firmly to oppose the use of this terrible drug in her family, except in a case of extreme necessity, and then only after having exhausted every other means. Even so, the morphine should be taken by mouth, notwithstanding the doses would be larger. The injection of morphine should be absolutely avoided. I shall later prove that injection is itself one of the causes of morphiomania.

Summarizing the above considerations, I might say that every patient that has once taken morphine has in him *the embryo of morphiomania.*

Morphine today, no one knows how, has become popular and has fallen into the hands of all classes of people, rich and poor, high and low, educated and illiterate. Not only the addicts themselves, but also others speak nowadays of morphine in the most familiar way and are apt to recommend its use for the slightest twingle or pain. The practitioner is openly asked to administer it, and it is used as readily as though it were only a harmless ordinary drug such as quinine.

The other alkaloids of opium have hardly any addicts to speak of. It is only in medical practice that now and again such addicts are met with and the majority of these use such alkaloids in combination with other drugs. An example of this class of drug fiends was the case of a patient addicted to taking veronal mixed with codeine. Such cases are most unusual. I have never seen another of this type.

Morphine and opium are the two principal drugs that are today affecting society. Both have the same effects from the drug addiction point of view, and destroy and kill in the same way. The only difference is that with opium the destruction is slower and the breakdown of his moral structure not so easily brought about as with morphine. The disturbances that differentiate them are of a clinical order and have only a professional interest.

I am not going to speak of morphine as a drug in a medical sense. My theme has a much wider and more important scope. I am going to show the disturbances that the morphine vice produces in the human race, and shall describe the manifestations of the patient that has fallen a victim to its deadly effects.

Morphiomania

We have already had a glimpse of the dregs and madness of vice. We have seen how drugs cause the self-destruction of men. We have met the Idol, the drug evil. Some views have passed before our eyes

of the haunts where human beings are driven to kill themselves. What has been shown to you is nothing compared to what now will be revealed. There will be unfolded before your eyes the most gruesome and nauseating picture conceivable. I am going to show and describe to you what morphiomania is.

The morphine intoxication produces morphiomania. This intoxication, to be really classified as such, is not an occasional indulgence of the drug. One or two doses are not sufficient to enlist you as a morphiomaniac. It is a slow and gradual process.

There are several medical theories as to causes of morphiomania. In my opinion the most plausible of these is that which ascribes it to the slow elimination of the poison from the system. Once the human body is morphinized it feels the need of keeping up the poisoning. And it is my own view that as the poison is accumulated in the body it attacks with greater destructive power the moral foundations of the patient, annihilating his subjective functions, especially the will. Thus the effects are two-fold, the morphiomania of the body and morphiomania of the spirit.

The principal point to be established at the outset is that morphiomania persists from the necessity under which the addict is of continuing to poison himself with the drug and that once the intoxication has started, however mildly, the necessity of taking the poison sets in. As the intoxication grows, the necessity grows, reaching to such a degree that morphine

becomes to a morphiomaniac almost as vital an element as the air he breathes. Those who possess only a superficial knowledge of the subject believe that this necessity is only a moral condition and that it is therefore possible to liberate an addict in the same way as a smoker drops the tobacco habit. This is a great mistake. Morphiomania in the beginning, perhaps, can be treated as a moral vice, but in less than a month the poison becomes a vital element for the patient—as coal is vital to a boiler. Its soot slowly corrodes the boiler, but also gives it its power.

I have divided morphiomania into three periods: namely, the first period, the *Initiation period or Vice Period;* the second period, the *Intoxication Period or Necessity Period;* and the third period, the *Advanced Intoxication or the Destruction Period.*

The first period is distinguished by the absence of any marked organic or psychological symptoms. The symptoms are hardly perceptible. I call this *the first* or *vice period* because the normal person who begins to take the drug does so not from necessity but through vice. The future victim begins the habit with one small injection a day and generally at night. Before a few weeks have passed he gives himself two injections a day.

During the first period morphine produces only its regular effects on every normal person. There is a short period of nervousness after the injection, accompanied by a contraction of the pupils of the eyes,

a dryness of the nose and throat, a very slight numbness of the arms and legs and a feeling of heaviness which begins at the back of the neck and runs along the spinal column and the stomach. At this point the brain becomes excited and "artificial dreams" take place. These "artificial dreams" are practically auto-suggestions created during these moments of lethargy. At the beginning of the intoxication these sensations last from two to three hours. As the intoxication grows, artificial dreams become shorter until they last no longer than from fifteen to thirty minutes.

During this first period no physical injuries present themselves, so that the patient does not realize or cannot understand the gravity of the vice he is acquiring. He has a vague idea of a peril which he believes has been overrated, but firmly relies on his will power to shake it off whenever he decides to quit.

In the majority of cases the injections are first administered in the legs or hips. The novice, although not very familiar with the details of taking drugs, takes extraordinary care regarding the disinfection of the needle and the size of the dose. This is due to the fact that he is somewhat afraid.

A state of depression follows the period of excitement and then the real sleep. The sleep, however, is fatiguing and does not restore the forces of the body. It produces headaches and general lassitude, sometimes accompanied by pains in the stomach. This lasts generally from ten to twelve hours, and the

victim wakes up feeling ill-humored, and unable to point out precisely where his pains are or what ails him.

Why does a normally healthy person take morphine during this period? I believe that in the majority of cases he does so through the lure of vice, curiosity, or the love of the mysterious. During this period there is not enough poison in the system to necessitate taking more. The individual during this period can not be called a morphiomaniac. He can still give up the drug without any physical suffering, for his system is not as yet poisoned. The patient looks normal during this period. He works as usual. His face shows great fatigue which he ascribes to real or imaginary illness. He never attributes it to the use of morphine.

The second period of morphiomania, or the *period of necessity,* is marked by the necessity of taking the poison. It is hard to draw the line separating one period from another. The following may serve as an explanation:

Let us suppose an individual beginning to take the drug and after a few days to be unable to continue the injections. He then feels a slight nervousness which he can easily appease with some other drug, or he might be able to forget about morphine by means of some treatment. The only disturbance he will feel is that he will not be able to fall asleep easily. His nerves will regain their calm only after a few hours.

He will then sleep well and awake feeling fine. We can then say that this is the first period of intoxication. If the same individual feels ill without the drug and suffers pain, is unable to walk about, lies awake for hours and reaps no benefit from other drugs, then he is in a second period or *necessity period.* This is when morphine will restore him to apparent normalcy.

This is the interesting period of morphiomania. It is specially marked by the fact that the drug no longer brings to the patient the "artificial dreams of paradise"; it produces only a brief and agreeable sensation along the spinal column and in the stomach, of from thirty to fifty minutes' duration. It is now that he takes an injection which will lend him unusual strength and energy to carry out any undertaking. This artificial stimulus will not generally last more than two or three hours, effecting itself and leaving a pronounced weakness, followed later on by sleep. It is by means of these physical changes that we see a morphiomaniac lapsing abruptly from activity to a state of inertia and an inclination to fall asleep. It is not easy to determine the exact number of injections the addict takes at this period. My experience leads me to believe that he takes four daily; one in the morning, one in the afternoon and two at night. The doses taken at night are generally stronger than the others. Sleep during this period is heavier than during the first period. I may point out that the addict of the *necessity period* cannot sleep for two or three

hours after the injection. This explains why the morphiomaniac is not an early riser. He needs from ten to twelve hours of sleep daily. But this sleep is tiring to the morphiomaniac. He leaves his bed in a state of prostration and is hardly able to move. He is obliged to take another injection in order to acquire renewed artificial energy. This morning depression is accompanied principally by a profound drowsiness, a buzzing of the ears, an unpleasant taste in the mouth, and a very heavy feeling in the arms and legs. He is utterly unfit for the slightest exertion.

It can be seen from the aforesaid that the unfortunate victim of the drug lives in a sort of vicious atmosphere. His only hope seems to lie in increasing the dose of poison. During the day he needs it to acquire energy to get around and at night he must have it in order to sleep. While during the *initiation period* morphiomania does not produce any outward signs, there appear evident signs of physical and organic disturbances during the second or *intoxication period.* The first symptom which is notably visible is an emaciation of the face, a dull expression of the eyes, a sharpening of the nose, the drooping of the eyelids, and colorless lips, a transparent appearance of the ears, a thinness of the neck and a wrinkled condition of the skin. An examination of the skin displays innumerable traces of needle punctures all over the body. The patient no longer confines the injections to the legs and hips. Any part of the body

will do. I believe that however acute the physical sufferings of the patient may be, his moral sufferings are just as great. The lack of energy goes hand in hand with the loss of his will power. He now feels that the poison has him in its horrible clutches and he suffers because he cannot escape from it. He knows that he is being hurried into the abyss.

However, he always entertains a ray of hope and feels that some day he will unexpectedly find a new drug, medicine or treatment which will cure him. He realizes the external signs of the poison and avoids appearing among his friends. When he is compelled to appear before friends he complains at once of some imaginary illness so as not to arouse suspicion.

At this time it is important to describe "necessity" for the drug in his absence. An hour later than the customary time of taking it the patient begins to feel the "necessity," followed by pains. It generally causes an extremely excited condition, a feeling of anguish, a difficulty in breathing, shooting pain in the arms, legs and back, an increase in the secretions of the nose and eyes, sneezing, headache, fatigue, lack of strength and a depression so great that the addict is practically motionless.

All these disturbances make of the patient a total wreck. He suffers pain all over the body so great that he feels as if life were slipping from him. It is now that the morphiomaniac becomes dangerous, for in order to get the drug he will do anything. He

needs his dose of morphine to lend him his *artificial normalcy.*

I call the third period of morphiomania the *destruction period* because the patient reaches the lowest possible moral and physical condition. Before entering the third period of morphiomania the drug addict can still be considered as a human being, despite the evil that has been wrought upon him. On entering the third period, however, the addict is converted into an unspeakable monster with almost every physical trait deformed and every physical attribute distorted to the utmost. Every remnant that is fine and worthy in a human being is destroyed. Only the skeleton remains with the flesh torn to pieces by the claws of the drug. The worst specimen of misery and tragedy that society can produce does not compare with the morphiomaniac in the third period. Imagine the shadow of a human being impregnated with poison, the ghastly and cadaverous face, pale as wax, and tinged with green as in death, the lips of a dark blue, the ears almost black and thin as paper. This is the morphiomaniac. Only the eyes show that the corpse is living. They shine brilliantly at times with the fiery or are deadened by the approach of death. The bony frame of the thorax is only left. The arms and legs have lost their muscles and the skin, dry and yellow, remains covering the bones as if on a mummy of thousands of years ago. The signs of the injections cover the body. The skin shows the punctures of the

needle where the accursed poison found its way into the delicate and healthy system. The addict is a living skeleton still clinging to life in order to be fed with morphine.

In this third degree of poisoning it is usual to find the patient's skin filled with abscesses or small sores filled with pus. The origin of these abscesses lies within the body itself and perhaps in the blood. I have studied certain cases where the abscesses appeared notwithstanding the fact that the injections were made under strictest aseptic conditions. The abscesses appear principally on the hips and legs and very rarely on the arms. They are very painful but easy to cure. An incision and simple bandage will make them disappear in twenty-four hours without any further treatment.

The number of injections the patient takes during this period varies considerably. Every patient presents a different case. It may be said, however, that the average number of injections ranges from twelve to fifteen a day, one or more every two hours. An injection can be taken every hour during the advanced stage of intoxication.

While the two first periods of intoxication by morphine produce moments of well being to the patients, the "artificial bliss" no longer comes to the addict during the third period and he does not feel any sensation along the spinal column or stomach. After the injection the patient recovers from the

lethargy in which he is always submerged and recuperates his strength during a period of two hours, after which he must resort to another injection to keep up his strength. Sleep becomes more and more abnormal during this condition and its restorative powers diminish accordingly with pains and disturbances constantly increasing. It is very interesting to observe one of these patients at the moment of waking up. His cadaverous appearance suggests the picture of death coming to life again. It is a far more ghastly sight than that of a consumptive in the last stage of the disease.

During this period the morals of the patient are destroyed as well as the body. Man as such has ceased to exist. All interest in life has disappeared. His only thought is of more poison. The poison has killed his will power. I have mentioned briefly the principal features of the drug addict during the three periods of morphiomania. I have dwelt only upon the poisoning and have hardly touched upon or considered the addict. I will write on the psychology of the morphiomaniac in another chapter.

We have so far learned that morphiomania is the poisoning of the system by morphine. The act of introducing the poison deserves special notice and in my opinion constitutes the vice in itself aside from the drug. I therefore consider drug addiction as having two phases: *Morphiomania* and *Needlemania*. I will now consider the latter phase.

Needlemania

Dr. Pravaz, the inventor of the hypodermic syringe which bears his name, undoubtedly conferred a blessing on mankind. But this instrument has also been prejudiced in an unexpected way. Everybody knows how medical science has been benefited by its facilitating the direct introduction of drugs into the system without passing them through the stomach where they undergo a series of changes in the process of digestion. The introduction of the syringe has also fostered the study and administration of serums. But against these advantages is the evil that has been wrought by the same instrument in enabling man to adopt the terrible vice.

Morphiomania without the syringe would not be half the scourge it is, and the number of addicts would not be as great. In the first place morphine taken by mouth would not kill as the intoxication would not be as rapid, and in the second place, the cure of the vice would be easier. I blame the syringe for at least fifty per cent of the number of addicts. The morphiomaniac has great love for the injection. It is not only for the pleasure the narcotic gives, but also the joy the addict experiences in the act of injecting himself. The injection has a distinct sensation, apart from that caused by the drug. I have given to this fondness the name of Needlemania. One need only observe the morphiomaniac to note his pleasure in injecting himself. The addict keeps and

handles the instruments, the needles and the syringe, with a religious devotion. These instruments are dearer to him than life. With them he pays the cult to the Idol he adores. The pleasure he receives from his vice he attributes in part to the syringe.

If one should propose to an addict that he swallow the poison instead of injecting it, offering him a larger dose for so doing, he would prefer a smaller dose as long as he could use the needle. I have made this experiment numberless times, with the same results. I have never found a patient willing to give up the needle. This uncontrollable love for the needle has various causes. I believe the principal one is the addict's physical disturbances which produce a saddic tendency which finds joy in the act of piercing the skin with the instrument, notwithstanding the fact that a puncture is much more painful to a drug addict than to a normal person. The mania manifests itself in several forms, from the simple puncture with a clean, sharp needle, rapidly carried out, to puncture with a blunt, dirty needle in almost any part of the body. Several interesting cases have come under my observation.

A man engaged in business and leading a very active life came to me for morphiomania treatment. He wanted to be cured of the habit. His case was not in a very advanced stage, and his physical and moral condition was far from hopeless. After being in my office for a few moments he asked me to ac-

company him home in his car. On our way he calmly produced a syringe, and a small bottle containing the narcotic solution. I asked him what he was about to do. He answered by simply injecting himself on the thigh, right through his trousers. He told me he always administered the injections in that way, as they did not produce such good results in any other manner. He had started the habit thus through lack of time. He used an unusually large needle which must have caused him great pain.

I pressed him for details of the origin of his habit and became quickly convinced that it was a case of saddism in the form of needlemania.

A curious case was that of a woman about forty years of age. She had been a renowned opera singer and was in the third period of intoxication, when I saw her. She remained in bed most of the time, getting up only for a few hours during the night. Her general condition was pitiful. Her face was cadaverous, her body extremely emaciated, and her swollen legs showed that the kidneys no longer functioned satisfactorily. Her needlemania consisted in the use of an old blunt needle, with which she injected herself in the neck. The operation was a terrifying sight as she seemed likely to pierce the jugular vein near the throat, that once produced the golden voice. She told me she had often tried to substitute the old, blunt needle with a new and proper instrument, but had gone back to the former because it gave better results.

Another terrifying picture was a needlemaniac of most extraordinary type whom I shall not easily forget. He was in an advanced stage of intoxication, his body covered with needle marks and painful abscesses. He was like a mass of flesh torn and bruised by some wild animal. The way he injected himself was dreadful. His favorite place for the puncture was underneath the tongue, which was torn and lacerated. It was a terrible sight even to the eyes of a hardened medical practitioner.

One of the most difficult things in the treatment of the morphiomaniac is the cure of the needlemania. The patient falls prey to an overwhelming mental depression on being deprived of the syringe and needle and being forced to take the poison by mouth. He craves the needle as much as the poison. After a patient becomes cured—and when I say cured I mean when he abhors the drug—there always lingers in his memory a faint reminiscence, a sort of a cloudy, dreamy memory of the injection. When the cured patient thinks of the past, he feels that he has miraculously escaped some awful danger. He does not feel the same, however, as regards the injection, of which he always retains a pleasant recollection. Most patients who have been cured or have been treated confess that although the poison has been forgotten, the injection is still remembered now and then.

To me, therefore, the syringe seems the symbol of morphiomania. It is interesting to note that the

drugs most to be dreaded are those driven into the circulatory system by means of instruments. Other drugs, such as cocaine, that are taken by mouth, have hardly as serious consequences as drug addiction agents.

The Initiation Into Morphiomania

The predisposing causes of morphiomania, the three roads leading to it, are: Disease, Nervous Prostration and Vice. We will find that every addict becomes a victim of Morphiomania in one of these three ways. I have already said something about disease as a starting point, when writing on the subject of Morphine. I have stated that any patient who has ever taken morphine is a potential drug addict. This is readily understood when we consider that the patient was relieved from excruciating pain under the drug. He can never forget the indescribable comfort derived from it and will be always grateful for it. He may forget it in good health, but a relapse to pain will bring the drug back to memory. The patient is doomed, however, if his second illness follows shortly after the first, unless it be of short duration. I am not referring to those unfortunate victims who suffer from fatal lingering diseases as cancer. Their pain should be alleviated by morphine. I am going to point out a great menace in connection with the administration of morphine in pain. Visitors, friends and relatives are often present, who have

some knowledge of the drug. They see the suffering of the patient relieved. Those who are not strong-minded but temperamental and inclined towards the lurid and fantastic, are tempted to get acquainted with the mysteries of morphine which appeals to their imagination. They try the drug and soon become addicts.

Nervous prostration is one of the conditions that most often lead to the use of the drug. Today man is unfortunately loosing the stamina and courage to bear the strain of life and the great demands made on his moral fibre. When he is unable to stand it any longer, how often he resorts to artificial means of forgetting his worries!

The intellectual worker is generally prone to these disturbances which manifest themselves in lack of sleep, nervous debility, or fits of sadness.

These moral crises are the most favorable moments to fall under the spell of morphine. Only the very ignorant and illiterate at the present time, and not even they, have sufficient will power to weather the storms of depression and moral anguish that are the distressing characteristics of modern civilization.

Cultured people, through reading and the widespread discussion of the theme in books and magazines, are familiar with all the details and temptations of the drug, and are, therefore, living close to the subject.

Though the skeptical may scorn, there is another

special ailment which is one of the causes of drug addiction. No matter how reluctantly we may say so, we must consider love as one of its causes.

The pangs of love, of jealousy and desertion, lead many to drug addiction. These victims manifest a redeeming feature. They are the ones that most regret having fallen into the clutches of morphine. Strange to say, these addicts never remember what induced them to fall into the habit.

It may doubtless be said that a normal, healthy person cannot become a morphiomaniac, since such a person is a stranger to weaknesses.

I believe that vices, like disease, are contagious.

The principal cause of morphiomania is the human unhealthy inclination to vice. The lure of novelty, new sensations, and the corruption of society are the responsible agents of drug addiction. Another cause is the mystery with which the drug is surrounded. Some people think it is refined to use the drug and that it is something exclusively for the select and super-intellectual. As a consequence they desire to be up to date and experienced in everything. Therein lies the danger. I have known people who never saw morphine yet boasted of being drug users, only because they thought it "smart."

Woman is much more easily carried away than men by this desire to be "smart," which so often leads to fatal consequences. I recall a young artist telling me before a number of her friends that she was a

morphiomaniac. Yet I knew she was nothing of the sort. She had tried but one injection. I could tell directly that she was only pretending, for on trying to inject herself in my presence she disclosed she did not know how to handle the instruments. She said she was tired of life, and insisted she was a morphiomaniac. I told her she was not a morphine addict and was simply trying to follow the dictates of a fad. Another artist, a famous violinist, told me he could never play without first snuffing cocaine. He would make this statement simply to impress addicts with his genius.

The danger, of course, is not with the amateurs just described, but with the silent propaganda carried on principally by the real addicts among the unsophisticated. It is remarkable how interested the morphiomaniac is in making proselytes for his vice; although strangely enough his interest is not with criminal intent. I do not believe drug addicts, as such, are really criminals, as I shall later explain when discussing his psychology. Nevertheless, he is dangerous to society because of his effectiveness in spreading the evil. Addicts when cured become bitter enemies of morphine addiction and most efficient preachers against its injurious effects.

I have pointed out the three ways to morphiomania, which must not, however, be mistaken for the actual causes of drug addiction, of which I shall speak later.

The Addict's Dose

It is important to consider the size of the morphiomaniac's dose. The usual dose for an adult is from one to five centigrammes, varying with the weight of the individual and the method of administration. When taken by mouth the dose must be increased from ten to fifteen per cent, to get results equal to those of injection. In the latter case a centigramme is sufficient.

The usual dose gives us an estimate of the frightful degree of intoxication which addicts may reach. The maximum dose for an average normal is of ten centigrammes; and a smaller dose will often cause death. Normally a human being has little resistance to morphine, much less than such animals as dogs and cats. I have observed from experiments made with cats that they can stand the enormous dose of six centigrammes in one injection.

The dose taken by addicts varies much. As already stated, they begin the intoxication with one or two centigrammes, and gradually increase the dose to incredible quantities after a few weeks. The subject at the end of the second month is taking as much as five centigrammes in each injection, twice a day, making a total of ten centigrammes every twenty-four hours. It is not easy to give the average quantity which a morphiomaniac takes in the advanced stages of intoxication. According to my observations it runs as high as one gramme every twenty-

four hours. I have records of cases of still heavier doses, some in combination with other drugs, going to show the great natural defenses of the system against such quantities of poison.

Among the cases of extraordinarily high doses of morphine may be called that of an addict, a pharmacist, who acquired the habit through the treatment of facial neuralgia. He began with the normal dose of one to two centigrammes a day and was soon taking as much as a gramme a day. This patient used the morphine with cocaine, the latter to kill pain of the injection. He had begun to increase the dose of cocaine almost immediately. He came to me four years after contracting the habit, and was by then taking a gramme of cocaine and two grammes of morphine daily. This is almost unbelievable, considering what the normal dose is. I might add that this patient submitted to the treatment and was entirely cured.

These examples prove the high value of nature in the preservation of life. Only the biological law of adaptation can account for the long resistance of morphiomaniacs to poison in doses that would rapidly kill a normal human being.

I have also seen cases of extreme intoxication from small doses. These cases offer the same difficulties in treatment as those of addicts accustomed to very high doses. A patient who injected himself with only five centigrammes of morphine daily required four months treatment before he was entirely cured. His

friend who took one gramme a day and underwent treatment at the same time was cured in three months. I have observed in connection with the size of the doses of morphine taken during the period of advanced intoxication some interesting facts which have led me to conclude that, with respect to each addict, two doses are to be considered—namely, the *vital dose* and the *de luxe,* or *luxury dose.*

The *vital dose* is the minimum quantity of morphine which the addict requires in order to live without pain and without the "artificial ecstasies." Medical authorities are not in agreement as to the size of this dose. My own opinion is that the vital dose should be equivalent approximately to two-thirds of the total amount he takes in twenty-four hours. Thus, the vital dose for an addict who uses sixty centigrammes of morphine daily is about forty centigrammes. He requires this minimum amount to be free from pain and functional disturbances. Any decrease of this dose of forty centigrammes will give rise to the necessity for more of the drug and cause disturbances of the patient's system.

The *de luxe* or *luxury dose* is the excess quantity of the drug taken by the addict over and above the vital dose. Where the addict takes sixty centigrammes daily the *de luxe,* or *luxury dose* would be twenty centigrammes. This overdose is superfluous so far as the comfort and regular life of the patient is concerned and only excites in him the "artificial

ecstasies" for a short period. An excessive dose of the drug makes the addict to suffer as much as an insufficient dose, causing him great fatigue. In the chapter on the psychology of morphiomaniacs I shall explain how one of the reasons for the excess in the dose is the fear of insomnia at night. This impels the patient, on retiring, to stress the dose in order to obviate sleeplesness.

The *de luxe* or *luxury dose* is very easy to suppress. When the subjects voluntarily submit to treatment they feel encouraged when they notice that only this excessive dose is gradually withheld until the vital dose limit is reached. It is then that the real difficulties of the treatment commence.

The Duration of a Drug Addict's Life

How long does a morphiomaniac live? This is not easily answered. The resistance of the human body and its adaptability to the drug are very important factors. In hospital wards only desperate cases which end in death can be observed with reference to duration of life. There is, of course, no telling how long those that are cured would have continued to live under the drug.

I have mentioned the cases of Chinese living from thirty to forty years using drugs. They were cases of opium smokers, not morphine users. Opium is less deadly. The morphiomaniac may, however, live for several years. Yet, it has been seen that the use of morphine may cause death often in a few months.

While at the Casino one night in Deauville, France, watching the roulette, my attention was attracted to one of the players who seemed to show the characteristics of a drug user. He appeared to be very nervous and played feverishly on the green cloth, apparently without heed of the considerable sums he was wagering. Shortly afterward he disappeared and then returned to his seat. His eyes flashed with energy, his lips held a cigar firmly and a monocle over his right eye showed the fine condition of his nerves. I immediately gathered from his appearance that he had taken an injection. After watching him for a few moments I accosted him frankly. Knowing the psychology of morphiomaniacs, I spoke to him as these patients should be spoken to, and we were soon on the best terms. He was an extremely wealthy man, highly educated and had acquired the drug habit during an attack of appendicitis. He answered all my questions and told me he had been a drug addict for the last twenty-six years. I have never heard, nor do I believe I ever will hear again, of a case of such long duration. From the great number of cases, among all classes, that I have treated, I had believed it impossible for the human body to resist the constant action of such a poison for twenty-six years. It also startled me to learn that his average dose for the last seven years had been fifty centigrammes daily.

On another occasion I was traveling by train from Paris to the Riviera. The train was crowded with

people leaving the cold of Northern France for the balmy climate of the Mediterranean shores. These migrations of the wealthy of Europe to Nice and Monte Carlo are always very interesting. One will observe elegant women garbed in luxurious and expensive furs, beautiful little children with their nurses, dignified Englishmen, and also Russians, Swedes and other nationalities. These gatherings afford a wonderful field of observation to the medical student of morphiomania. He is seldom disappointed. I began to scrutinize the faces to find in some of them traces of the vice that has always been to me a subject of profound interest and study. I noticed in some of the passengers signs that aroused my suspicions. It was difficult, however, to ascertain if the emaciation noticeable in some of them was due to morphine, or to the fatigue of travel. I finally concentrated my attention on one of the passengers. She was still an interesting woman, petit and pretty, of delicate and refined appearance. Her face was very pale. The conviction grew on me, from her looks and other details, that she was a morphiomaniac. I hardly dared to approach her directly, and so resorted to a stratagem. I drew from my bag a hypodermic syringe, wrapping it loosely with a piece of paper, and then waited until she went out of the corridor of the car. I followed, passed very close to her, begging her pardon, and at the same time let the package drop to the floor. She immediately changed her expres-

sion. We quickly became friends. I told her I was a specialist in morphiomania, and before long the wax-doll beauty took me into her confidence. She was a Russian Princess of the highest aristocracy, and occupied an important position at the Russian Court. She had an interesting and engaging personality not only because of her appearance and distinction, but because of her misfortune. She explained her case to me in detail and astounded me by saying that she had been taking the deadly poison uninterruptedly for eighteen years. This is another case of almost unbelievable duration.

In contradiction to these cases I may mention that of Captain Z of the French navy. His brother came to me and asked me to examine the patient. I found him in a deplorable condition, consumptive and full of the abscesses characteristic of the third period of intoxication. He had been in the clutches of the poison only seven months and in that short time became a living corpse. Two months later he died. Morphine had done its deadly work in the two last months.

Another case is that of a French doctor who had lived for a long time in the French colony of Tonkin, where he had acquired the opium smoking habit. He had begun with a dose of five centigrammes daily. His entire system began to give way at the end of three months, and he died then.

All of these cases are extreme ones, and cannot serve as a basis to determine the length of life of a morphiomaniac. I have referred to them only because

of their interest. My experience has led me to the conclusion that *the average life of a morphiomaniac is four years.*

The Morphiomaniac's Death

The morphiomaniac's death is tragic and ghastly. It is the climax of a life of abject misery and terrible suffering. The invalid of most other diseases is unconscious during the last moments of his life and slowly leaves this world with the pulsations of the heart as the only visible sign of life. This extreme compassion is denied the drug addict, as if the drug delighted in the last ordeal. The consumptive dies apparently embracing death lovingly, and to my mind with all the mental faculties gone. An infectious fever deadens the brain. Traumatism deranges the brain and death from hemorrhage is very rapid, hardly allowing a brief moment of consciousness. The morphiomaniac, however, retains his lucidity to the last moment to witness his own agony and feels the poison choking him to death. The morphiomaniac dies from one of two causes, either the lack or the excess of morphine. It is dangerous to keep the drug from a patient in the second degree of intoxication. The greater the intoxication is the greater the risk, and serious derangements are frequent when the drug is withheld. Patients subjected to treatment by sudden suppression and quick elimination of the drug are liable to collapses that endanger their lives. The uninformed believe that death was caused by the poi-

son in such cases. The reverse is true. Death being caused by want of the drug. If death does not come immediately after suppression of the drug it may come through complications originating in the demorphinization of the patient.

Such complications may be pneumonia, neuritis, meningitis, or abdominal infection. These do not constitute the ordinary cause of death of morphine addicts. Addicts generally die from the excess of morphine. Death from morphine is a terrific and heart-rending sight, a picture of disintegration and a fitting deterrent to this widespread vice.

Death from morphine is marked by a decided disturbance of all of the normal bodily functions, except that the brain continues entirely clear and regular. Every other part of the body, to the last cell, is saturated with the morphine. The system no longer functions normally, but simply obeys the dictates of the drug. The patient is but a living skeleton with eyes and hair. The voice is weak, with a continuous plaintive murmur. The patient must have his injections continuously, every hour, half hour or even more often. Abscesses appear all over the skin, leaving hardly a healthy spot at which to introduce new doses. The legs are swollen through inflammation of the kidneys, the abdomen sunk in, the arms but two squalid bones. The patient emanates nauseating and repulsive odors.

I have tried in vain to study patients in their last stages before death in order to get a glimpse into their

moral state during those last moments. They hardly move or talk, though wholly conscious of what is happening around them.

Thus die the victims of this new cancer invented by men, the victims of dope, the unmerciful Idol, which tortures its worshippers till the end. These are the effects of morphine, more tragic and destructive than any plague.

The Psychology of the Morphiomaniac

The morphine addict is not characteristically a degenerate, nor is he disabled in mind; he is simply a sick man, or woman. If one who succumbs to purely physical stress through lack of physical strength is merely regarded as physically weak, so also should one who ignorantly and through lack of moral fortitude yields to drugs be treated merely as an invalid.

We all feel endowed with a remarkable will power as to our future conduct, we feel confident that we can make ourselves do or refrain from doing whatever we so will. This self-confidence runs through all human activities; but is especially marked in the morphine addict. If the addict knew in advance what sufferings were in store for him, he very probably would never yield to the vice. But he feels sure of himself and honestly believes that he will give up the vice before it gets the best of him. It is curious to observe that this self-assurance does not disappear even in very advanced cases of intoxication. The patient, unable to resist the lure of the drug, still per-

sists in believing that some day he will be able to muster enough will power to cast aside the drug.

Drug addicts as a class have it in their will and intention to quit the vice. Of course there are degenerates among them, but these are primarily of a great nervous disorder, but they are not typical drug addicts but patients suffering from a nervous disorder complicated with, but not originating in drug addiction.

The morphiomaniac as such is simply a person addicted to the use of morphine. He is devoid of any cerebral or organic lesion. In other words he is peculiarly a morphiomaniac.

The public, uninformed in such matters, is often inclined to regard these poor unfortunates as insane, as degenerates or as criminals, which is a grave injustice. I do not believe that morphiomania produces any more delinquents than any other disease. In this connection I wish to repeat that the morphine addict is neither insane, nor a degenerate, nor a criminal, but merely a person who is sick. Sick like one inhaling mercury while working in the mines, like one poisoned by acids in a laboratory, or like one infected with bacteria. In the last analysis, one as well as the other, is suffering from disease.

It should be thoroughly realized that the drug addict, as such, is a person free from any moral turpitude of the poison, he is a perfectly normal being.

Those who have no actual good reason for acquiring the habit can blame it on their ignorance. The

addict as a patient, therefore, is entitled to as much sympathy and kindness as any other patient, if no more.

Why should they receive more consideration than the others in this respect? I can testify to the sympathetic natures of addicts. Their moral suffering so far surpasses that of other patients that they become extremely sensitive to the sufferings of others. They are generally highly impressionable to mental suffering though hardly so as to bodily ones.

The most noticeable trait in the patients is their lack of stamina in the struggle for life. The nature of their ailment renders them thoughtful and critical. They all study and meditate on their condition with wonderful accuracy and insight, observing other addicts until they acquire a clear conception of the evil. They call a doctor while in this condition.

If he is not competent and well informed on the subject of drug addiction, they laugh at him, and the doctor may then come to the conclusion that he is dealing with a degenerate or an insane person, whereupon his treatment fails from the beginning. The patient and the doctor do not work in accord. This is often the case.

In the treatment of other diseases medical skill will enable the doctor to diagnose and ascertain facts concerning the malady of the patient without delving into his moral condition. It is impossible in the treatment of morphiomania to diagnose unless there is a

mutual understanding established with the patient. My knowledge of morphiomaniacs has come from the patient study of them, but I must confess that they have taught me more as friends than as patients.

The reason for the disappointments experienced in the study and treatment of morphiomania is due to the lack of knowledge of the psychology of the addicts. One is lost without this knowledge. It is essential, in order to treat these patients, to establish a deep friendship with them. It requires the co-operation of the patient in order to diagnose the symptoms and to achieve results.

The Victim of Morphine

The morphine addict is the victim as much of the intolerant attitude of society as well as of the poisonous drug. Patients could be easily cured if the causes of morphiomania were better understood. They are obliged, however, to hide their infirmity until the last stages of intoxication, when their condition is almost beyond hope. It is difficult to understand this popular prejudice against the morphine addict. It probably should be attributed to ignorance and to the propaganda made against it, presenting it in the light of a social crime. The patient is forced either to dissemble or to ostracize himself. The world for him is peopled by beings different from him. He experiences only the harshest treatment and the cruel sneers and contempt of his fellow men, which literally pushes him to his ruin.

Even those patients who have adopted the habit through their own free will are punished in a way they do not deserve. All classes of addicts are looked upon as social offenders of the worst type, instead of as patients. There is no consideration shown them. It is a daily torture that is inflicted upon them, moral and physical. They are not only under society's indictment, but they have the daily agony of drugs. And yet no other patient is more deserving of our sympathy than the drug addict.

The poorer classes especially are objects of pity. The drug poison is equally disastrous pathologically to all other classes. The possession of means, however, goes a long way towards alleviating the suffering of the afflicted. But the poor addict, who is obliged to work for his living, is indeed worthy of consideration, and every effort should be made to cure him.

All the patients I have treated concur in their assertion that the most tragic and cruel moments of their infirmity is when they have to leave their beds before having slept at least twelve hours. Another source of suffering is when they realize that their condition has been detected by strangers. And they will all shudder at the anguish of their situation when their supply of poison has been exhausted, forcing them to the streets in search for more. They must undergo incredible humiliations, blackmail, exploitation of every kind at the hands of criminal, soulless

dealers, and part with the money they need for their rent and for the necessities of life. Words cannot adequately describe the helplessness in which they are obliged to carry out these merciless and terrible transactions, in hidden places with subdued voices, trembling with the fear of the law, begging on their knees for the drug, more essential to their lives than food itself. And yet one reads in stupid and commercialized fiction, in magazine stories, and popular comment of the happiness and enjoyment derived from this vice.

Pleasure and enjoyment? Yes, they do experience it when the hateful poison passes from the needle into the body. It is the pleasure of killing pain and physical torture. It consists of a few moments of relaxation and insensibility. It is an artificial state of coma which passes rapidly, followed then by an agony which day by day and year by year increases the misery of the patient. Added to this, is the loss of every vestige of will power which is one of the psychological effects of the poison. In this connection a patient once remarked to me, "The disintegration of the human elements is so great that even the stamina to commit suicide is denied to us."

Continuous human suffering will easily make a renegade of any person. Drug addicts are so persecuted by all sorts of cruelties that it is small wonder they become criminals. They lead a life of helplessness in a world of cruelty and scorn. They are most

sensitive and appreciative of the smallest kindness and sympathy shown them. They are even eager to take refuge in a friendly bosom that will speak words of human understanding to them. They open their hearts instantly. And this is precisely the relation that the medical adviser must establish with the patient from the very outset.

The fear of night is another psychological feature of the morphiomaniac. They dread the unending hours of insomnia during which they reflect most keenly on their dire plight. The majority can not sleep until three hours after retiring. While healthy individuals sleep, the morphine victim lies awake in mental torture, draining his tragic misery to the last drop.

The Spectre

The drug fiend shows some peculiar traits externally that betray him to the expert. He has a tendency to wander as if he did not have any idea as to where he was going. His pale and greenish complexion denotes his persistent fatigue and disgust with life. The sharpened nose, the transparency of his ears, his drooping shoulders and lack of energy all betray his condition, especially in the advanced stages, when the drug addict is like a spectre of his former self.

He remains motionless when sitting and stares at some object. His eyes soon close. He will make super-human efforts to open them, but to no avail. His

speech is lucid and brilliant at times but will suddenly become indistinct and hardly audible. He gradually becomes silent and remains motionless, with his glance fixed on one spot as though hypnotized.

What is the true condition of the morphiomaniac in such moments? He is shut out from the outer world. He is internally awake and more sensitive than a normal being to his interior sensations. This is probably due to the effect of the drug on the liver and solar plexus. He has complete control over his periferic nerves, and this enables him to remain absolutely passive.

In his outward appearance he is careless and indifferent to tidiness and cleanliness. His social and financial conditions have no effect on him. His vanity is entirely dormant.

The Underworld of Intoxication

Disease tends to separate people from each other. Charitable sentiment causes the healthy to visit the sick. But it is only momentarily. This is a biological law which is also found among animals. As soon as a man enters a pathologic state he is a different being because his functions are different. This is why morphiomania has given rise to a sort of underworld, perfectly independent and different from the normal world. The drug addict lives and moves within a sphere of abnormalities and ends by losing contact with what is real and normal.

One of my patients told me that morphine so changed his life that he could not understand how people could live without it. He also said: "I watch my little Pekinese dog sleeping and I wonder how he can get along without an injection. I look at you and other healthy men, only to become confused when I think of it, of life without morphine. It is my world —you call it the world of poison—but I cannot conceive of a world of any other sort." This is probably the state of mind of all morphine addicts. They marvel at us as we marvel at them. Their understanding between themselves is astonishing. They love each other. They understand each other. I have often seen women addicts of refinement, education and high station in life love uncultured and common addicts. All the artificial and social attributes of life disappear. Morphine has driven them into a world of their own with its own peculiar ethics. They live among us as an exotic species in wonder and fear.

Science, ever watchful of the relief of human sufferings, has made great strides in the treatment of morphiomania in spite of this sombre picture.

It is possible now to wrench many victims from the clutches of the poison. A rational treatment will bring them back and restore them to the normal life. I say "rational treatment," because I do not so regard any treatment which consists in shutting a patient up within four walls under constant vigilance and forcibly separating him from the drug. This would be

making a martyr of him. A "rational treatment" consists in having the patient give up the poison gradually with the least possible suffering and until he experiences a joy of normal life. When this is accomplished he may well say that he has been reborn. The patient who has the good fortune to get cured of the drug habit returns to life with the unbounded spirit of happiness and feels that everything has been newly created for him.

I have seen patients of advanced age regain this sensation of youth and optimism. They recall their past with horror, and Nature, in her wisdom, fulfills the law of compensation to the utmost. The different organs regain their normal functions without aid of drugs. Within a few months they are again working to marvelous perfection.

Chapter IV

HEROIN

Heroine is another derivative of opium, another daughter of the Idol which is even more deadly than morphine. Its development among the drug addicts increased during the last few years, more than other drugs and with more destructive power than morphine and opium.

Socially, heroin is today a big problem; clinically, I do not think that there is a big difference between the intoxication produced by heroin, and that of morphine or opium.

The heroin addict is absolutely the same as the user of opium or morphine, his mentality, his psychology and his intoxication does not show any characteristic symptom or stigma.

The peculiar action of this drug is to destroy rapidly and to push the addict into the dangerous and deep abyss, difficult to be cured. Its power is stronger than morphine and its victims die more rapidly than from other drugs.

The cure of heroin addicts is of course more difficult than that of other drug addicts. I always advise those patients to give up heroin of their own free will and take morphine instead before beginning any treatment.

It is interesting to observe the increase nowadays in the number of the heroin addicts; the only reason can be found if we remember that the drug addict in his delirium for the poison always tries to increase the action of the drug, and consequently his feelings.

I do not think it necessary to make a distinct separation between morphine and heroin; each works in the same way, each belongs to the same group in medicine and each presents about the same difficulties in the treatment.

The drug addict affected by heroin uses his poison by injection. The strong power of the drug renders the doses smaller than those of other poisons. An addict who takes, for instance, seventy or eighty centigrammes of heroin a day must be considered a degenerate and advanced drug addict.

Among the cases that I have observed, I remember a patient who took a gramme and ten centigrammes a day of this drug, a quantity in excess to correspond to more than two grammes of morphine in consideration of the power of the drug.

The simple heroin addict is not often found. In many cases the use of this drug starts after the patient has lived a certain time using morphine or opium. It is rare to see the heroin addict initiated in a depraved life, by the use of heroin only. Frequently the patient is an old morphiomaniac who seeks new ways to gratify his vicious instincts.

The duration of the heroin maniac's life is shorter

than that of a patient addicted to another drug.

In three or four years heroin may destroy and kill with terrific power.

In medicine heroin has not the value of morphine. Its use is only indicated in certain cases and rarely eases pain.

According to official reports the use of heroin has increased only in America. In other countries, for instance, France, morphine is still preferred by users of opium derivatives.

I shall make no further remarks about heroin as its effects are the same as those of morphine.

After the chapter on morphiomania the description of heroin cannot present a new type of drug addiction.

CHAPTER V

COCAINE

WE now enter an entirely new field. Cocaine produces an intoxication peculiarly its own. Its destructive action, symptoms, and clinical aspects are different. The psychological and physical conditions of the addict differ as much from those of the opium and morphine addict as those of an alcoholic drinker differ from a smoker of hasheesh.

The popular belief is that all drug addicts are alike. This is a very common mistake. Of course the final result, the moral and physical destruction of the individual is identical. The use of morphine can be compared to a dangerous fall over a precipice and the use of cocaine to a slow descent into an abyss that can be halted at almost any time with little effort.

Cocaine is the alkaloid of a plant named "Peruvian Coca" (*Erytroxylum Coca*) that grows in several South American countries, especially in Brazil, Bolivia, Argentina and Peru. This alkaloid is used in medicine as a local anesthetic for minor surgical operations. The doses vary from one to five centigrammes. Larger quantities may cause disturbances dangerous to life. Confirmed addicts take incredibly large doses, as much as five grammes daily.

This drug has an enormous number of addicts. In South America not only is the drug taken pure as in other countries, but also the inhabitants chew the leaves of "Coca" as a daily stimulation.

The Indians of Bolivia and Peru walk long distances with only meager food and a large supply of "Coca" plants.

It is the principal aid they have in their work and they are seen continually chewing the leaves. It is not a food as is often supposed. But its action on the mucous membranes of the stomach produces a slight anesthesia that numbs the feeling of hunger and thirst. It produces a slight nervous stimulus also. The Indians erroneously believe that it gives them energy when covering long distances.

What effect the long use of this drug has on the system is not known. I have witnessed the most surprising things connected with it. Some Indians show marked signs of extreme malnutrition and symptoms of tuberculosis from its use. Others of the same tribe, also chewers of coca, are perfectly strong and healthy and capable of an incredible capacity for work and resistance to fatigue, beyond comparison to what a man of the white race could stand. I have met scores of Indians in Bolivia who were over eighty and one hundred years of age and who have chewed coca leaves since youth. In spite of the miserable life they lead under all sorts of hardships, these Indians attain that extremely old age in

perfect health. I talked with a woman who had completed her one hundred and sixteenth birthday after chewing coca leaves all her life. How can this be explained by science? Let us compare these natives to a modern athlete who, if he takes to drug addiction, finds himself within six months on his death bed.

Cocaine, like morphine, attracts new addicts every day. The extremely nervous lay hands on any poison regardless of the consequences. Cocaine is in great favor.

The number of its users is probably greater than the number of morphine addicts. It is easier to get and is also easier to take as it does not require the use of a syringe or needle.

Morphiomania should be considered as a real disease or infirmity, whereas the cocaine habit can be treated only as a vice. It is taken in different ways: by chewing the leaves, by injection or by snuffing it through the nose. Those who inject it are really morphiomaniacs, as they usually take it mixed with morphine or heroin.

One of my patients used to inject herself with morphine between the toes. Before doing so she would inject cocaine into her foot to deaden the pain. I often noticed that she would use the cocaine in her left foot and then inject the morphine into her right one. The majority take cocaine through the nose or mouth. They place the white crystallized

powder on the palm of the hand and sniff it strongly through the nose. Some others simply put the dose in their mouth until it is absorbed. The drug is always kept by addicts in fancy cases. Some of these cases are often made of gold and studded with diamonds. Cocaine is very much in vogue among the "demi mondaines" of the large cities, who claim for it special consolatory virtues for romantic ailments of the heart.

The variety of forms in which cocaine is taken is amazing. An elderly lady, whom I treated, a person of means and distinction, would introduce the powder into her mouth and rub her gums until they bled. She seemed to experience great delight in doing so. When she felt the poison was nearly absorbed she would drink one or two glasses of champagne, and wash down the remaining powder.

Another patient, a post office clerk, who suffered from impaired hearing and had often had his ears syringed, used to make a solution of cocaine and syringe his ear with it.

The Intoxication of Cocaine

The intoxication produced by cocaine is not so complicated as that of morphine. And the effects are much milder. In my opinion, it resembles the intoxication produced by alcohol. It may be lighter still than that produced by alcohol, because the cocaine addict is not an "addict from necessity." The morphiomaniac is subject to great pain and discomfort

when the effects of the drug disappear, whereas the cocaine addict suffers no pain or disturbances whatsoever except a slight nervous excitement. The morphiomaniac is a sick person before and after his dose of poison, whereas the cocaine addict is perfectly normal when the effects of the drug are dispelled. Hardly any signs will show on the cocaine addict revealing his habit except the emaciated appearance of all persons addicted to the use of drugs and during intoxication. He seems like a drunkard during the period of intoxication. The eyes are wide open, as in delirium, the face very pale, and the breathing frequent. The general aspect is that of an insane person. The mouth will often contract in spasms of the inferior maxilarry as in tetanus and epilepsy.

The addict of the advanced stage cannot sleep and is subject to visions and delirium. He feels as if there are flies biting him and running over him. This is due probably to the action of the drug on the peripheric nervous system. He feels as if he were being pursued and is extremely fearful of being alone as a consequence. This delirium lasts about three hours after which he falls asleep for a period of about fifteen hours. These symptoms occur in the advanced stages of intoxication.

Generally they are more moderate and confined to nervousness and semi-consciousness.

The Psychology of the Cocaine Addict

The cocaine addict does not deserve the same sympathy and consideration that should be shown to a morphiomaniac. The morphiomaniac, once in the clutches of morphine, cannot live without it, whereas the cocaine fiend can drop the habit without suffering, except for a slight annoyance and discomfort. The cocaine addict is really a degenerate by nature if he does not discontinue its use. The sympathetic nature and truthfulness of the morphiomaniac is absent in the cocaine addict. My experience with the cocaine addict has been disappointing. He is inclined to lie and cheat and never acts in good faith with the doctor. He generally has other vices besides being a drug fiend. He is immoral sexually and, on the whole, hard to deal with.

The cocaine fiend usually indulges at night-time in his libations. He will keep on absorbing the poison until he feels the effects coming. Then he stops. These addicts like to get intoxicated together and never alone. They frequently gather together and indulge in a veritable orgy.

I may mention a very interesting form of cocaine addict for whom I have no scientific explanation to offer. Many of these addicts wrap themselves in towels or sheets impregnated with cologne water or strong perfume so that the drug will have a stronger effect. They then absorb the cocaine through the

nostrils. The odor of the perfume and the drug throws them into a delirium.

The treatment is much simpler for these addicts than for those addicted to the other poisons. The cocaine habit can be easily substituted. The elimination of the poison can be hastened by the use of alcohol and certain drugs. The morals of the patient must be uplifted as this is part of the treatment.

This is practically all there is to this minor form of drug addiction called cocaine-mania.

Chapter VI
HASHEESH

IN THE distant Orient, where the first spiral of opium smoke soared into the air, there grows another plant that produces a poisonous drug, as dangerous and harmful as the rest that compose the drug addiction family. The first smokers of hasheesh were not content with the juice of the poppy and set out to look for another narcotic that would set the muscles in vibration, and in the sunburned fields of Central and Western Asia they found the plant scientifically called *Cannabis Indica* or *Cannabis Sativa,* that produces hasheesh.

Hasheesh is a narcotic drug that comes from the plant in the form of Rosin. The plant is a tropical one and though it grows in other countries it does not produce an adequate toxic. Egypt and Mexico also grow it, and in the latter country its use has extended considerably among the natives under the name of *mariguana.* Its intoxicating effect is very much appreciated in the Orient among the Turks and Egyptians, who describe it as *Maslac* and *Mojuch* respectively. It is also highly valued among the Indians of Indostan, where it has received the famous name of *Hasheesh,* which means weed or herb. The word hasheesh applies equally to the Rosin, the flower or the infusions of the leaves of the plant, to which other substances they are often added.

The intoxication of hasheesh is produced in three ways: by smoking, chewing and infusion. Its widest use is in cigarettes made with the flowers of the plant, or either pure or mixed with the other aromatic substances or drugs such as opium, camphor, musk and cantharis.

It is prepared for chewing purposes in tabloid form mixed with licorice or other sweet substances agreeable to the palate. The infusion is made with the leaves and flowers added to tea or coffee. The Arabs use a mixture of aromatic perfumes with great relish because of its narcotic properties.

The customary use of hasheesh is in the form of cigarettes made with the rosin and tobacco mixed. Its effects are very different from those of opium. The habit does not take hold as easily as it does with opium. I believe that with hasheesh the "necessity" is not pronounced as it is with opium or morphine. The addict does not suffer the profound disturbances if suddenly deprived of it, as in the case of other drugs named. The action of the narcotic and the sensations of the smoker are also different to those of opium. In order to understand them I shall quote a description by one of the addicts:

"On finishing my second cigarette I try to walk, and feel a tickling sensation in the feet and a sense of oppression in the head, that quickly vanishes. I feel as if my head were empty. Everything that I look at seems to change. The face of my friend has

the funniest aspect imaginable. I start laughing violently and continue doing so for an hour or more without the least provocation. The most extravagant and absurd ideas pass through my mind with incredible rapidity. On the other hand, I am without the least pain. There is no present, no past or future in my life. My senses slowly begin to die out and fade, and a desire to sleep overcomes me.

"On awakening I remember everything that has passed. My head is not drowsy, my tongue is not pasty as after opium or morphine, and a cup of tea or coffee is sufficient to make me feel the same as before smoking hasheesh. These sensations were my sensations during the first period of my addiction to the drug. Later on, when the dose became larger, other symptoms appeared, that I cannot describe exactly, as hallucinations and delirium would deprive me of consciousness, but I can say that the sensations are of an extraordinary intensity of pleasure. The slightest movement, however, would destroy the extatic feeling. The eyelids would close to the effects of light. The queerest and strangest ideas would fill my thoughts, accompanied with violent fits of laughing and uncontrollable loquaciousness, followed by an intense sensation of hunger. After this I would have a strong feeling of oppression in the head, a desire to move, to break everything within my reach until I finally lose consciousness. . . ."

The continued use of hasheesh is more harmful

than opium and the physical disturbances are especially acute. According to a report by Dr. Nehemed Aly Bey, Director of the Moriston Asylum in Cairo, ninety-five per cent of the interned in that institution were smokers of hasheesh. This fact led the Government to prohibit the cultivation of the plant in Egypt. The ravages of the drug are seen in Mexico, where often, without apparent cause, addicts are seized with the attack of mad frenzy, attacking and killing passersby. It is *the mariguana* that caused the seizure.

Large doses of this drug sometimes produce a form of catalepsy, which causes complete suppression of consciousness and intelligence, local anesthesia in the arms and legs, after the period of nervous excitement.

An Egyptian student, an old addict of hasheesh, had lived four years in France without smoking the drug. A friend one night invited him to smoke hasheesh and he indulged in a great number of cigarettes. He was seized with a furious attack that lasted more than an hour, at the end of which he fell into a state of catalepsy that lasted for three days, dying on the fourth day of heart failure.

The action of hasheesh is mainly on the brain. The symptoms will vary according to the temperament and character of the individual. The effects are much stronger than those of opium. Sometimes, though rarely, hasheesh has a profoundly depressing effect. Hallucinations are often the results of its use. Opium

produces a serene and quieting effect on the individual, while hasheesh causes violent manifestations. A very curious effect of hasheesh is the loss of all notions of space and time. This does not occur with the use of opium.

The hallucinations affect the eyesight as well as the hearing, but rarely the sense of smell. Fits of weeping alternate with extreme mirth and loquacity. The patient often believes he hears melodies or else sings himself. He often thinks he is riding on horseback, driving or flying. I have seen some cases ending in persecutory mania, which causes the addict to fear persons around him. In such cases the addicts would dislike children, hide under tables, behind chairs, and crouch with fear in a corner. The effects of the intoxication of hasheesh are just opposite to those of opium. The social dangers of the use of hasheesh are very grave for the addicts generally wind up as lunatics. The addict of other drugs returns to a normal state, when cured, or at the worst with some complications of the heart or kidneys. The hasheesh addict ends with brain trouble and is liable to madness even after being cured.

Fortunately, the use of this drug is not so common as opium and morphine. In some countries like Mexico, the "mariguana" is used to a great extent due to the great abundance of the plant, which makes it hard to combat the evil.

I believe that the "mariguana" of Mexico produces effects of stronger convulsive force than the plant of Egypt, while the Asiatic variety attacks the lungs, producing congestions not perceived with the "mariguana." These symptoms of the lungs and hemorrhages have been frequently noted, when the fresh rosin or leaves of the plant are used.

One can easily understand the terrible effects of hasheesh. The addict who has not used the drug too long can be cured after two or three months of treatment. If he has been using it for a long time he is a patient afflicted by an affection of the brain.

I have applied successfully in simple cases the method of the instant suppression of the drug, replacing it by opium or its derivatives during the first days when the patient is subject to intense nervousness and suffers from lack of sleep. The treatment involves the exercise of a great deal of prudence because the addict is exposed to the temptation of using opium or any other drug that is available.

Hasheesh does not present a problem so important as morphine or opium.

Chapter VII

CAUSES OF DRUG ADDICTION

THE world is going through a veritable crisis, as if groping in the dark. There is a tremendous upheaval going on, a ferment that will require years to quell. A great change is being effected in human life, and the great war was only an episode of that change. Some great movement similar to those that history records is in the making. The force that started it in 1914 is still at work and whatever its ultimate result, everything will have changed. The evolution is gradual and slow, but even now we can aver that men are not the same as they were before the war.

Its influence on humanity has made itself felt in different ways, and to the scientific mind the biological problem towers above all alse. Thousands and thousands of men have been tortured with appalling suffering, and have been irradiating *"waves of pain"* that have been absorbed by the minds of other men, and we may ask if the continuous irradiation of these *"waves of pain"* have not acted upon our physique and upon our physical condition, transforming them in some way or other.

If we consider things that were logical and not extravagant to our forefathers and compare them to

the modern conception of things, what a change we shall find! We are living, therefore, in an age of rapid transformation, an age replete with passions and crime, where lust is rampant and virtue and honor a mere mockery. Our nerves and souls no longer conform to the healthy simplicity of yore, but seek feverishly the exotic mysteries of what is new and extravagant. It is thus that we have changed from the indulgence in alcohol to the more deadly one of morphine and its auxiliaries.

This is the age of dope. The new vice is in its infancy, and is already menacing mankind, with an overwhelming impetus. The field for its propagation has been so favorable because one-half of the people of today are in a state of neurosis, and the nerves require the deeper stimulus of active poison. Alcohol was not satisfactory. What are the causes of this phenomenon?

Modern Life

The whole trend of modern life seems to have been especially designed to shatter the nervous system. The noise, the constant bustle, the ceaseless activity, must wear out the muscles. It cannot be denied that science tries to keep pace in this mad race toward annihilation and that the methods of hygiene and physical culture do their utmost to stem the tide, but new diseases and new forms of destruction are ever springing up and retarding progress.

Man today suffers from neurosis, because the stress of civilization is too much for him. Steel and machinery are his greatest enemies. An endless motion that conquers his resistance fills the atmosphere, the very air that we breathe, the incessant noise, tax the nerves to their utmost, wearing them down slowly like the drop of water that perforates the rock. The struggle for life and even the mammoth buildings, with their perspectives, act on the tired brain by their size and effrontery.

Improper food is another of the causes. Modern commercialization, the adulteration of natural products, chemical substances, canned foods, all contribute to the intoxication of the system and weaken the nerves. We live in a hurry. Life is being shortened and we are obliged to cover distance in a short time. This acceleration of life can be borne only at the expense of the human engine. The greater the energy we expend, the greater the wear, and as we do not give the body and mind sufficient rest, we lose the vigor originating in the nerve centers. Hence the modern neurosis.

Of course people suffered from neurosis in bygone days, but it took a different form. The weakened of today present a morbid condition from which our ancestors were free. Stimulants are necessary to relieve the depressing conditions and only the poisonous drugs offer such relief. Drug addiction is a consequence of modern life. It is not that the Orient in-

troduced it to our more highly civilized races. On the contrary, we went to those distant countries in quest of it. Our over-wrought nerves needed something to enliven our tired brains. We could not afford to give ourselves rest, sleep, fresh air and proper food. So we resorted to dope to give us those artificial sensations that replace the exhilarating buoyancy we ought to feel should we lead a moral life.

What has the future in store for us? Will drug addiction prevail today, affecting those of tomorrow, born under such influences as we have just described? Will education and hygiene be able to cope with heritage and surroundings?

The Craze of Pleasure

The men and women of today begin to enjoy life at an early age, and the majority at twenty, have imbibed deeply into the passions and physical pleasures of life. The human being is biologically far from being invincible in body or in mind at the present time. After ten years of this intense race in quest of amusement, the modern man or woman is already worn out and at the early age of thirty the symptoms of premature decay appear. Woman, who is much less resistant than man, feels this initial destruction much sooner, and her nervous system gives way with greater rapidity. There is no moral control to this mad whirlwind. Temptation in all its magnetic attractions are within the easy reach of all. Literature,

the theatre, the dance craze, meet us everywhere we go and what is perhaps worse, we have developed a certain attitude or state of mind, in which we keep up certain forms and appearances of restraint and are satisfied with the apparent propriety of our conduct. This feverish and silly abuse of pleasure leads to depression and indifference to the finer things of life and to premature old age and diseases of the nervous system and mind. Our will gradually weakens and we fall a prey to neurosis with its consequent craving for new sensations, pleasures and new stimulants, which will give us the illusion of force and resistance to indulge in them. We then fall an easy prey to the insidious and perfidious propaganda, have recourse to drugs and finally become addicts. The smallest pretext will hurry us into the world of poison. Our minds and our bodies are prepared for it and a slight pain, or a moral flurry is sufficient to make us fall into the dark and hellish pit of drug addiction. Thus the lack of moral restraint and the craze for amusement are other causes of the evil.

Prohibition

It is very important to study the influence of prohibition upon drug addiction.

In France and England, for example, the morphine addict has within reach all the alcohol he wishes. Still, there is no indication showing that the number

of dope fiends is on the decline in those countries. A great deal of confusion exists in regard to the alcohol craze and drug addiction.

The morphine addict does not care for alcohol, or rather is not interested in it in a fundamental way. He cares for nothing outside of morphine. In my practice and study of dope fiends I have devoted special attention to prohibition, not with the reference to the problem in itself, but in relation to the possibility of alcohol as a help in the treatment of morphiomania. I reached the following conclusions:

The morphine addict never gets intoxicated by alcohol. When under the influence of morphine he drinks liquor not because he is addicted to its use, but as a minor and unessential habit, or at most to induce and intensify the sleep of morphine. He can very well do without it, for alcohol will not replace the effects of the drug. It will not cause the pain to disappear. On the contrary, it will aggravate it, as I have often had the occasion to notice. I have, therefore, reached the conclusion that alcohol does not exert the least influence on morphine addicts.

It is a different case with cocaine addicts. It apparently has some influence upon them. In the treatment of those patients alcohol will materially help, especially when the addicts suffer from a lack of sleep or when it is dangerous to prescribe any other remedy. I have in such cases administered strong doses of alcoholic drinks with good results. This does not

mean that the craving for the drug may be caused by the lack of alcohol, not by any means.

Of course the limit of vice is hard to draw. Its forms are innumerable. There are some cases of addiction to alcohol and drugs at the same time.

I had a patient addicted to cocaine who would put the powder on her tongue and take a glass of Chartreuse or Benedictine. She would keep the liquor in her mouth eight or ten minutes and then slowly swallow it. Another patient who chewed opium would put large pills of it in his mouth and swallow them with strong drinks of cognac. After repeating this several times, he would be completely intoxicated and strangely enough, would present all the symptoms of alcohol intoxication and none of opium. But these individuals are not really drug addicts, they are simply degenerates of the lowest type. *Prohibition, therefore, does not encourage drug addiction.*

Religion

The profession of religious principles is undoubtedly one of the strongest barriers checking the development of drug addiction. I have often witnessed cases of young men and women, well placed in society and intellectual, who have boasted of atheism, fatalism, modernism and cubism. These young men and women have spoken in favor of indulgence in the drug habit on the principles that the only ethical rea-

son for life was to live in the senses. I once addressed a young lady of this type who boasted of being a morphine addict. She described the symptoms and effects of the drug with such detail that it was remarkable, almost Oriental. The whole picture was so absurd and fantastic that it seemed to me that she would probably faint at the sight of the hypodermic needle, not to mention the injection of it. She was a snob and thought it was up-to-date to pretend knowledge of which she knew nothing. If this charming young person had been brought up on sound religious principles and in fear of God, she would have kept aloof from the subject and temptation.

Curiosity and snobbishness will often lead young people to try an injection or smoke opium, just to see what it is like.

Moral and religious principles are the greatest barriers to drug addiction.

Ignorance

Drug addiction until recently was an unknown subject to the majority of people. Most people consider it a social crime instead of a disease. This is a great mistake, which should be corrected by all means, as it would greatly help in the campaign against the propagation of the evil.

Everyone knows more or less what contagious diseases are and the methods used to combat them. Everyone knows something about tuberculosis and

typhoid fever, but few know what drug addiction is, and this is one of the reasons for the spread of the drug habit.

Morphine is often spoken of in the home as a relief for the slightest and most insignificant pain. If the danger of its use were known people would avoid taking it except in extreme cases. Even members of the medical profession are apt to be lenient and give in to the entreaties of patients, where a much firmer stand against the use of the drug would be justified.

On the other hand, the attitude of the public towards the morphine addict is one of hard and cruel intolerance, and in great contrast to the drinker of alcohol, who is fondly petted and taken care of. This is only ignorance. The public should know that the morphine addict is a patient suffering the terrible and painful effects of a deadly poison and should be pitied and helped.

The ignorance regarding the use of morphine and other poisonous drugs is one of the causes of drug addiction. If young people knew the horrors of it they would avoid it as they would infectious diseases. Young people should be taught and shown its dangers in the same way they are taught and shown the dangers of syphilis and tuberculosis.

Drug addiction should be dragged out of the atmosphere of mystery, and literary humbug with which it is surrounded and glorified.

Chapter VIII

THE DOPE VENDORS

THE drug addict will always try to get the drug. The difficulties he will have to overcome may be great or small, but in the end he will obtain what he wants. The mind of a dope fiend works but in one direction—in obtaining the drug.

All the restrictive laws, all the penalties and all the police forces of the world will not prevent his looking for it. He will resort to the most daring and ingenious means to succeed. There must be drug vendors in order to supply the drugs. We shall concern ourselves in this chapter with the traffic of the dope.

No matter where one goes, the transaction between the addict and the drug merchant is always the same. The merchant is always prepared with the goods, which he never carries on his person. Those who are peddling the drug on the streets, with the drug hidden in their pockets, are the raff, the poachers, that bear the same relation to the seller of drugs as the street car pickpockets do to the bucketshop swindlers of great cities. They are the last link in the endless chain of the dope traffic.

It is a great mistake to think the seller of drugs looks for the addict. It is the addict that goes after

him. The dealer has the poison hidden in strategic places where dope fiends know they will find it. The ease with which the addict gets the drug is the problem which the eradicating of the evil encounters. It can be found almost anywhere. The dope sellers are everywhere, although hard to detect.

I was walking the streets of London with a patient of mine. The city seemed asleep under the fog. After leaving the throngs of Picadilly we walked towards Leicester Square in the heart of the theatre district. From one of the silent corners of the ancient plaza we watched the ebb and flow of the theatre-goers, of cabs and taxicabs, on the busy side of the square. The dampness of the night made my patient tremble. He was sensitive to the slightest impression due to the process of demorphinization he was undergoing at the time. We decided to wait a few moments and then take a cab. Suddenly, my patient bolted from his apathetic state and became nervous and alert, intently watching a car that stopped very near to us. He told me to observe the interior of the car. We could see the silhouette of a woman inside the car sitting motionless in the dark enclosure. A few moments later another car arrived and a man stepped out with a package in his hands. He went to the first car, saluted the lady, spoke a few words and went away. My patient then hurried to the car and bowed to the mysterious lady. There was a faint cry on his approach, then an expression of surprise and finally

a friendly shaking of hands. I went over to them. My patient said, "Mis X, allow me to introduce you to my friend, Dr. Cantala." Miss X was the charming star of the Olympic Theatre in Paris. My patient expressed surprise over the fact of her buying opium in London. Miss X knew of me quite well as a specialist of drug addiction. On asking her the details of her malady, she told me that she was obliged to come to London for the opium because there was a shortage in those days in Paris due to the police activities, which made the big dealers and their agents very cautious. She was told how to get it in London, even to the exact hour and place for the appointment. Somebody would walk up to her car and pass-words would be exchanged. Then she would get the package. No records of any kind would be kept. With a precision and punctuality which is not to be found in legitimate business, an invisible force from a foreign country would arrange to supply the poison to one of its addicts. What sort of an organization is at the bottom of all this? Who are the wonderful executives at the head of it? How does it work with such machine-like perfection, with such clockwork perfection? Nobody seems to be at the head of it. The spirit of Idolatry sets the organization in motion.

While returning from the Argentine Republic to Europe some years ago, I was asked to attend a woman passenger, a cocaine addict. It appeared that she had lost her bag containing the poison or it had

been stolen from her. As we were four days from Rio de Janeiro, I had to give her various remedies to ease her condition. When we entered the beautiful bay of Rio de Janeiro on a fine morning, I thought my patient would be one of the first to leave the ship, but to my astonishment she stayed on board. In the evening the steamer weighed anchor and continued the journey. I found my patient in the best of spirits, happy and full of life. I was really perplexed. I found, on approaching her, traces of cocaine under her nose and in her eyes. How did she get it without going on shore? I asked her to tell me but she would not. Finally, she told me all about it, amid peals of laughter and making fun of me because of my perplexity. A friend brought her the beautiful bunch of flowers she had on the cabin table and a doll, as mascot for the trip. She unscrewed the doll's head and it was full of cocaine.

The trade of dope is carried on by purveyors and the sellers. It is the sellers who deal directly with the addicts, alloting small quantities of the drug to their different clients. These sellers are always among the addicts, and are familiar with their physical and moral traits, being able to detect them immediately wherever they may be. They can tell at a glance whether a person is a real addict or a spy posing as an addict. They have a thousand and one ways of foiling the agents of the law. They hardly ever carry the drug with them, thus avoiding the danger of being

caught in the very act of selling. They resort to the most extraordinary and fantastic means of hiding the drug upon their person and informing the addict where it is. I will mention some interesting cases.

Around the gay places of Montmartre, a disabled veteran of the World War would be frequently seen walking along, limping on his wooden leg. The "croix de guerre" and other war medals could be seen pinned upon his breast. He was a favorite in the neighborhood and everybody greeted and helped him. The students and the artists made it a point to honor him and invite him to all their parties. He would relate an endless story of heroic and sublime deeds with becoming modesty. Verdun, the Marne, the Somme. He knew all these names, had been on the fields where his blood had flowed for his immortal France.

His narratives were really inspiring and moved his listeners to tears. All the students would yell at the top of their voices, "Honor the hero!" They would then sing the latest songs of the Latin Quarter.

But one day something unusual happened. The hero was arrested by the police. The police officials had discovered the truth. The crippled hero was not a hero. He was not even a soldier and had never been at the front. He happened to be just a criminal offender, a drug dealer who was found to have the hollow of his wooden leg filled to the brim with small packages of cocaine and morphine.

He had lost one of his legs leaping from a moving train after having been caught by the police officer picking the pocket of a sleeping passenger.

One night in Paris, in company with a colleague of mine, I attended a man suffering from a bullet wound that had shattered his leg. The patient turned out to be an addict to morphine. He was a poor individual out of a job and without funds, who had devoted himself to finding out the hiding places where drug dealers concealed their merchandise. He knew that they never carried the drug with them but placed it where the addict could get at it. He espied one of them in a water spout, which in French houses come all the way from the roof to the street level, draining the water or the snow. One of the sellers would keep close watch on the place, except when he would occasionally make a short trip to the adjoining cabarets and cafes to meet clients who would be waiting for him. Our petty thief would take advantage of these short intervals and steal the treasure. He did this several times and was riddled with bullets when attempting to repeat his criminal trade.

I am sure that not only in Paris, but in London, New York and other cities these dope merchants transact their business much in the same way. It is almost impossible to find them out. It would be necessary to have a body of dope fiends attached to the police force to find them out if it were possible to get dope fiends to aid. The addicts are, however, too

strongly bound together to lend their help to the police.

A great deal of exploitation of addicts is being done in this illicit and criminal commerce in drugs. The merchandise is adulterated and sold to the poorer classes at a cheap price. Cocaine is substituted by boric acid, morphine by milk sugar, opium by chocolate grease and clay, and hasheesh by plain tea colored by some process. Dope fiends who frequent places of amusement are often supplied with these worthless substitutes which are not detected at the moment. The psychological element has such an influence on the ecstatic disposition of drug users that they are unaware of being cheated. The music, the noise, the excitement, all facilitate the deception practiced upon them. Dope fiends, in such places, will ask for the drug. When it comes to the purchase of the drug, all sorts of precautions will be taken, secret negotiations will be made with the managers, and the addict will be informed that some client might be willing to part with his supply at a certain premium. The craving for the drug will become stronger as the addict is forced to wait and because of the influence of the poisoned atmosphere of the place. The miraculous powder finally arrives. The enraptured victim is frenzied with joy and pays the price. He will feverishly begin to snuff it through the nose in small quantities. If these should fail to give the desired effects he, nevertheless, feels something. It is the cham-

pagne, the liquors, the dancing. He believes, however, that it is the drug. He will get up the next morning with the nose irritated and inflamed, due to the boric acid he had been snuffing the night before in large quantities.

The street sellers of dope are not an important factor in this great question of drug addiction. They are only the minor agents of other distributors who are agents of the purveyors. The street peddler gets in contact with a great number of common people. He does not get his merchandise from the manufacturer.

Here is where the evil in the manufacture of the drug lies. The production of alkaloids should be strictly limited to the requirements of medical use only. The unlicensed clandestine manufacturers should be the objects of the strictest and most unrelenting prosecution at the hands of the law.

It would be interesting to know how the enormous quantity of dope is transported from one place to another without being detected. Thousands and thousands of pounds, worth millions of dollars, find their way into the great centers of the world secretly and safely. It cannot be done by smugglers or sailors. They receive too much publicity. And what are the few pounds they bring in, compared to the enormous quantity consumed? Who does the gigantic financing that is involved in this precious merchandise, more valuable than gold or precious stones?

There must be some powerful capitalistic organization at the head of the drug market, or trade could hardly exist. Addicts will speak of a fabulous financial concern devoted to the production and distribution of dope. They do not know who they are, and undoubtedly their imagination is affected by the poison which makes them exaggerate their statements. But there must be some truth to their assertions.

A patient once showed me a package of cocaine he had bought. The drug was packed in large envelopes, each containing a printed leaflet with all the instructions to be followed. Immoral pictures of men and women were included and the pleasure of drug addiction described.

The drug habit was represented as being harmless and good for the health. I have seen tubes of morphine tabloids different from those used in the medical profession. The dose of each tabloid is five centigrammes, whereas the legitimate ones are from two to two and one-half centigrammes each. The presentation of these clandestine drugs was such as to warrant the assumption that they must have been prepared and put up in important factories devoted to the alleged commerce in drugs.

All persons who study or are interested in the problem of drug addiction know the variety of forms in which drugs are being sold by the merchants and manufacturers of dope.

They are often sold in delicate looking cigarettes that contain heroin, or in beautiful candy boxes, in

which are bonbons, each containing the hidden dose of cocaine. The drugs are also put up in tubes similar to those containing cream for the face. It is logical to infer the manufacture of those products is being done on an enormous scale somewhere and distribution made to all parts of the world. Where is this center of production? Where is it located? How is the drug distributed? Nobody knows precisely, but certain signs and details point to Germany as the country where the manufacturing center is secretly located, and to France as the center of distribution.

Every effort should be made to find out who are the propagandists of this criminal outrage of the world. The law should then fall mercilessly on them. It is not the unfortunate drug fiend who should be punished.

He is only a patient and invalid, who should be treated and cured and dealt with kindness and sympathy. But the merchants of dope have no excuse except commercial lust and the greed for money. The evil and the harm they are doing in the world is beyond imagination. They are destroying humanity in a manner worse than war and all the infectious diseases put together.

No punishment is too harsh for them.

Chapter IX

SOME MEDICAL CONSIDERATIONS

I WILL attempt in this chapter to outline some personal views with regard to the rational treatment of morphiomania. I will confine myself as much as possible to a simple exposition of the subject in non-technical language and endeavor to place my conclusions within the reach of my readers.

The treatment of morphiomania is the important theme, the medical and the social riddle of the present moment in practically every country in the world. It is the general belief with many addicts and the public that morphiomania is incurable. In fact, this is not the case. I assert that it is curable. I assert that there is a cure for it providing that science and the patient work together to give battle to the enemy.

We must banish the idea at the outset that a morphine addict is a degenerate and an outcast. This is the foundation of my treatment, and if not accepted as such, then failure is almost certain, even before the treatment of the patient has begun. Once our minds are settled upon this essential point, let us proceed.

The first thing for the doctor to do is to win the entire confidence of the patient and encourage the latter to rely on him as a friend, full of human sym-

pathy for his suffering and affliction. The patient must be convinced of the necessity of telling the truth and trusting his doctor without reserve. It must be borne in mind that the patient is not to blame for withholding the real facts. Some of the methods of treatment in use involve such hardships and suffering on the patient's part, that he is terrified beyond words.

To shut a patient in a room or deprive him forcibly and suddenly of the drug is as cruel and painful as to perform a surgical operation on him without chloroform. This method makes a patient reluctant to submit to such a treatment as can be readily understood. This treatment has not only failed to cure an addict, but has produced numberless incurables because the patient who has once gone through it will never again, during his life time, approach the doctor. He will avoid by every means any such treatment.

These errors have made morphiomaniacs sceptical and pessimistic, depriving them of any power that still remains to them.

This is a fact to be regretted, as the drug addict is an optimist at heart, who never loses the hope of getting cured, a circumstance which should be made the most of. Psychology and suggestion should go hand in hand to obtain the exact knowledge of the character of the patient and to gently and firmly induce him to confide in the doctor to the utmost. Success, in other words, can only be had by the patient and the doctor arriving at a friendly understanding.

A patient who has been in a sanatorium three or four months, deprived of the drug, cannot be said to have been cured. It is only an intermission in his plight, an obstacle in his general run of life, which he will soon brush aside. To be cured he must feel as he did before acquiring the habit. To eliminate every vestige of the poison from the system and from the mind.

I have seen many patients who have received as many as seven treatments at different periods, and who are still addicts. In different hospitals and sanitariums I have seen patients appear every year for treatment, for a cure, driven to do so by their families.

They would commence the treatment without the slightest faith, resigning themselves to two months of torture, probably to please their relatives, and at the end fall back to the drug. This universal experience is what has caused the popular belief that addicts are incurable and has made addicts despair of the possibility of getting rid of the habit.

What is the reason for their failure? There are several of them. The principal one is perhaps the lack of a psychological knowledge of the patient and the application of a treatment which though medically appropriate is antagonistic to the moral state of the patient. The brain is the organ most seriously affected in morphiomania. A weak heart, degeneracy of the liver or inflammation of the kidneys, are easy to cure, but a brain affected by poison is a problem

that will make any treatment fail if not handled as it should be.

The treatment of morphiomania includes the treatment of heroin and opium addicts. Cocaine addiction, as already stated, is in a class by itself and offers no difficulties to speak of. It is with morphiomania, therefore, that we are concerned. It is the giant Goliath of drug addiction that the world is challenged to combat.

Starting with the fact that a morphiomaniac is an invalid, we shall therefore arrive at the following conclusion: that a morphiomaniac can not be considered as cured, until he recovers his normal state and gets to hate morphine.

Before analyzing the treatment of morphiomania, we will consider first the disturbances that a patient is subject to when the drug is withheld. They differ from the intoxication symptoms, and may be described as the "disintoxication symptoms," or "abstinence symptoms." They appear the very moment that *the vital dose* of poison is decreased and continue to develop gradually, in proportion to the curtailment of the drug.

The first sign is that of a general lassitude, accompanied with yawning and sneezing, especially if the patient is exposed to the sun. There is an irritation and itching of the eyes with abundant lacrimation and secretions of the nasal organs. Coughing is frequent and the voice hoarse and uneven. The pupils are dilated, the pulse weak and irregular with

chills and perspirations along the spinal column. The legs and arms are cold, the knees and thighs pain, an oppression in the kidneys and a painful sensation predominates the body. The patient is restless and a distinctive feature is a peculiar contraction of the legs.

Another curious symptom is a nervous blinking of the eyes. Added to these are numerous disorders of the digestive organs, namely, colic, neuralgia of the liver, pain in the stomach and on the right side of the abdomen similar to that experienced in appendicitis and nausea. The patient experiences great weakness while walking and moving about. He can only go short distances and is frequently obliged to rest. The condition may be described as a "morphine ataxia." In serious cases paralysis of the heart sets in and often produces death, especially in those cases where the drug is suddenly suppressed.

The mental symptoms, besides restlessness, include an inordinate desire for the drug, which reaches a stage of veritable delirium. He raves for it, implor-ingly, convulsively, and rolls on his bed shouting: "Morphine! Morphine!" Women are subject to at-tacks of hysteria similar to epilepsy and hallucinations that last from fifteen to thirty days. The patient in this acute stage is in danger of collapse, and is often subject to suicidal impulses.

What are the real causes of these symptoms? Un-fortunately we do not know exactly as yet the true action of morphine accumulated in the system and

the changes the poison undergoes before being eliminated. Science has not yet revealed these facts clearly and probably because they have not received the attention they deserve. I will attempt, from my own experience, to draw my own conclusions.

As morphine is a powerful stimulant it must, logically, react on the system on being suppressed. Upon entering the system the drug is partly absorbed like any food or medicine, and partly eliminated through the digestive organs, the kidneys and the saliva. The residue accumulates gradually and constantly in the body in the way that "fat" does in people who eat to excess. In some patients this accumulated poison remains in the system as morphine. In others, it transforms into "morphine oxide" due to chemical action similar to that of hemoglobine in the blood which must be transformed into oxyhemoglobine before being absorbed. Thus the substance enters and pervades the whole system from the most complicated tissue to the most rudimentary cell in the same way that iron or albumen does. The disturbances which follow the process of disintoxication must undoubtedly be produced by the action of "morphine oxide" on all the cells of the system. The antidote of this substance must be morphine itself. In other words, as there is morphine in the system, in certain quantities, oxiganation cannot start its effects, and the sufferings of the patient on being deprived of the drug are due to the accumulation of the drug in the sys-

tem that acts upon all the organs as morphine and as morphinoxide.

To the suffering caused to the patient by the suppression of the drug must be added the reappearance of pain such as neuralgia, that the patient may have had before taking morphine, as is often the case.

The duration of this distressing period of disintoxication has no limit. Sometimes for months the patient will continue to complain and groan as at the start and I have witnessed cases of collapse to reappear suddenly two months after the treatment.

To sum up, I may say that though the difficulties of treatment are really great, and in spite of the many discouraging failures that have led many to consider morphiomania incurable, I venture to assert that it is curable, provided the patient is not made to suffer by the treatment.

Chapter X

TREATMENT*

Methods of Cure

I SHALL refer to some of the methods heretofore followed for the cure of morphiomania. I shall not describe them all as they are too numerous and do not differ much from each other. The principle in all of them is the same and I shall therefore describe only those which constitute distinct types or schools in this branch of medicine. The following are the principal methods:

"Sudden Suppression" Method — The treatment consists in depriving the patient suddenly of the drug without substituting for it any other medicament. The patient, accustomed to his usual dose (whether this be large or small), is completely deprived of the drug without any previous preparation, and wholly removed from the environment of morphine, needles and syringes. The method can be applied only in sanatoriums where the patient may be constanly

*In accordance with the purpose I have had in mind in writing this book and in keeping within its general scope, I have precisely avoided such technical details as would fall within the domain of the medical student. My object has been to treat the problem of drug addiction in general and practical terms, within easy understanding of the general public, though in such a way that the student will find in it much matter for thought and observation. As will be observed, I have omitted particulars about doses and other indications which can be considered as dangerous information to drug addicts and patients.

watched or in wealthy families able to afford nurses or other caretakers to keep a constant vigil.

The cruelty of this method may be appreciated when it is stated that any patient who has ever undergone such treatment is a bitter enemy of all physicians, hospitals and sanatoriums, and would rather die than ever submit again to any cure. His enmity is easy to comprehend. The patient is suddenly drawn out of the intoxication to which he has become accustomed and is thrust into an abstention that is to him a veritable hell, from which he cannot escape until he finds the drug again.

The principle underlying this method consists in brusquely cutting off the drug and simultaneously seeking to establish a rapid or active depuration or "disintoxication" through the medium of the intestines, kidneys or stomach. From the very first day that the patient finds himself under this regime he begins to suffer tortures and undergoes serious disturbances. The organism begins to manifest a series of complications of most distressful character. The patient, kept in confinement and under constant vigilance, becomes like a caged beast tormented by fire.

The first effects experienced by the patient being subjected to such treatment are a general perspiration and pains in the legs and bones. The patient also immediately experiences an increasing irritability and unrest. From the very first days the patient suffers keenly, but the suffering reaches its acutest stage when the purgatives are administered. He then

either gets into a state of delirium, pacing desperately to and fro, weeping and often attacking, or else becomes like a poor helpless animal, twisting and turning in convulsions and pain. He may remain in this state for days and even months without showing the slightest sign of forgetting morphine. The administration of purgatives simply aggravates this terrible situation, which though accelerating the elimination of the drug, frequently causes complications such as paralysis or collapse of the heart manifested by a lowering of the pulse and a general breaking down, even to the point of unconsciousness. This complication is very frequent and places in jeopardy the very life of the patient, necessitating an immediate dose of morphine. Other symptoms are neuralgia of the stomach and liver, with pains that reach the abdomen and thorax. Vomiting also occurs, with copious hemorrhages and serious disturbance of the digestive organs due to the action of morphine on the pneumogastric nerve. Enteritis occurs throughout with cramps, usually on the right side of the abdomen, often leading the physician to suspect appendicitis. One can very well imagine what the general aspect of such a patient is. The poison, it is true, is quickly and entirely driven from the system, but morally the patient is a wreck. Morphine is always present in his thoughts. What wouldn't he give for an injection!

This treatment may be called an antitoxic treatment that eliminates the poison from the body but

not from the mind, where the patient continues to be a morphine addict without morphine because it is not within his reach. The recovery is rapid, the appetite returns, and the only uncomfortable trace left is a hyperchloridia or acidity of the stomach due to the secretion of the gastric glands, which were kept dormant by the morphine's effect of restricting the flow of hyperchlorid acid.

Sleep is a very important problem with addicts and difficult to induce even after treatment, when drugs are often again resorted to. In this treatment the condition of the patient is aggravated owing to the profound moral stress to which it subjects the patient.

After two or three months, the patient seems to be getting on well. During the day his mind is occupied with different things, talking to friends and others. The minute the patient is alone, however, he becomes depressed, mournful and melancholy, especially so at night. He is still a morphiomaniac morally.

"Gradual Suppression" Method—As the name implies, this treatment consists of the gradual diminution of the dose, until its complete suppression is attained. This would appear to be the rational method of treatment if drug addiction were only a habit. But this is more than a habit, it is a mass of complications, of disturbances, organic and moral, that defy the logic of this treatment.

The dose is gradually diminished from two to five centigrammes or even more, per day. The patient, during the first days, experiences no unusual symp-

toms, except that he resents the reduction in the dose and distrusts the authenticity of the drug. He is given the same number of injections to which he is accustomed, gradually reduced in quantity, except at night, when they are of full strength in order to insure sleep.

As stated, so long as the drug is within the "de luxe" or luxury dose, there is no disturbance, but as soon as the "vital" dose is diminished, complications begin. The first symptom is the characteristic moral depression and the impatience with which the patient awaits the next injection, after which he reacts and rests. Some specialists, at this stage, hasten the suppression of the drug, substituting for one of the drug injections with an injection of water or any other innocuous substance. I may say, however, that I have never seen any good results come from this procedure. Trouble begins with reduction of the dose. The patient suffers from sleeplessness, nervousness and pain in spite of veronal and bromides given in strong doses. These symptoms become acute when the dose has been reduced one-fourth and are similar to those that appear in the first method of treatment above described. Collapse and paralysis of the heart are not so frequent, though I have noted them when one-fourth of the total dose had been suppressed.

The general symptoms, though identical from now on to those of the other treatment, are not pronounced, especially the patient's debility. The recovery is slow, and generally takes two months before it is complete,

physically. Morally, however, the patient is in the same state, as under the first method of treatment. I personally prefer this latter form of treatment. Accidents are less frequent and the moral condition of the patient is more favorable. But on the other hand, the patient is not cured by it. His organism is rid of the poison, but mentally he is yet under the influence of morphine. As soon as he is again free, he goes back to it.

"Mixed Methods" — There are several of them. They consist principally in substituting for the morphine injections its administration by mouth. These methods are deceptive to the patient and the doctor alike, because both are drawn into the vicious circle of intoxicating and disintoxicating the patient at the same time.

The first man who studied drug addiction was Dr. Friedler, of Dresden, in 1874. He originated this mixed treatment, replacing morphine. A wave of morphiomania swept France in 1870-1874 and the Friedler treatment of administration of opium by mouth became popular.

This method has the advantage of not provoking psychological disturbances and not affecting the general condition of the patient. The intoxication is maintained, though in another form, by swallowing the drug instead of injecting it. There comes a time when the injections are totally omitted, but on the other hand the system is intoxicated with opium. In other words, the morphiomaniac has been converted

into an opium addict. It might be argued that the cure of opium addiction is easier than that of morphine. The result, however, is far from being satisfactory.

The details of the treatment vary. As a rule the morphine injections are substituted by an equal number of doses of opium extract, administered by the mouth, which doses are gradually increased as the injections of morphine are suppressed. The patient under this treatment is subject, at this stage, to nervous disorders from the absence of injections, and to paralysis of the digestive organs from the direct action of opium on these organs. Pains and disturbances begin immediately when the opium dose has decreased.

After two weeks, at the utmost, when the relapsing opium is totally suppressed, the patient is treated symptomatically with strong doses of bromide compounded with veronal, sulfonal and cannabis indian, to which is often added antipirine. These drugs seem to alleviate somewhat the general restlessness, but their effects, as a whole, are not satisfactory, apart from the objectionable fact that they are also habit-forming drugs. All patients in this period of abstinence from morphine are apt to acquire secondary habits with other drugs. I have seen them become addicts of salicilate and bicarbonate of soda, and they take naturally to the derivatives of opium. The substitution of codeine for morphine in this treatment is of small value, in my opinion. I have employed it in

very high doses and it has answered very poorly. Its effects were disappointing and did not compare with veronal.

The "Suggestion" Method—This treatment was in use some years ago, but has now been abandoned. It consists of hypnotizing the addict to eliminate the habit under the hypnotism. I have seen this treatment applied a great number of times, but never with success. It may perhaps be of some use in isolated cases, when the hypnotizer can live with the patient and have him constantly under his mental influence and control. Not improbably, some good can be accomplished in this way, but complete cure is out of the question; and this notwithstanding that a morphiomaniac is in every sense the most docile and susceptible of patients to mental suggestions. He is not so, however, when it comes to dropping the use of drugs.

The patient is asked to stop the use of the drug for two or three days in order that the mental power may act on his brain, free from morphine. It is an impossibility for an addict to abstain from the drug that long of his own free will. It has often been tried with alcohol and tobacco fiends, but without result. Considering these failures, it is no wonder that hypnotism has been given up as futile in dealing with the tremendous grip of morphine.

Other Methods—At the present time science is making the most strenuous efforts to arrive at an

efficient treatment of morphiomania. Experiments are being conducted on different principles. And any progress made is being added to what already has proven valuable.

I may mention, the treatment is based on the use of hyosciamine or scopolamine in injections. This drug has many advocates at present. Personally I am bound to confess that the results obtained with it in my practice have not been very gratifying.

In the first place, the need of administering it hypodermically constitutes a great disadvantage, as it helps to maintain the *needlemania* of the patient. On the other hand, it produces great nervous disturbances in the form of hallucinations and delirium. In cases where the drug is well tolerated by the patient it must be applied in small doses every three or four hours. During the active treatment the patient is subject to a relative want or need of drugs, but when its use is discontinued, the pains of demorphinization return, undoing whatever good had been at first accomplished. Of all the treatments described, however, this is, relatively speaking, the best, because it is the one that causes less suffering to the patient.

Tranfusion of the blood has also been tried, and though not a treatment in itself, it helps in some cases. Electricity and radium are now being tried, but experiments with these are still in their initial stage.

My Treatment

Before beginning the description of my own method of treatment, I shall first set down the fundamental principles on which it is based.

The morphine addict lives in a world different from that of other men, and it is impossible to forcibly take him out of it. Medical treatment should not aim at removing the patient from the environment of intoxication until the patient leaves it of his own accord.

Experience has shown that it is impracticable to separate an addict from his drug. It is therefore necessary to make him gradually forget the drug. Clinically, this apparently cannot be done, but if it be considered that the failure of every attempt to demorphinize an addict is due to the physical pain imposed on him by suppression of the drug, it stands to reason that it is this physical pain that must be combatted principally.

In other words, if we can eliminate morphine from the system without pain to the addict, then it may be easy enough to cure him.

To make this possible, I prescribe the use of certain drugs in certain methods, which I shall presently describe and by which the patient gradually throws off the poison without pain, rendering his seclusion in a hospital practically unnecessary. In saying that the addict will refrain from morphine without pain, I mean that there will be the absence of physical dis-

turbances. The mental ecstacies and artificial energy to which the addict has become accustomed and which morphine produces will, of course, disappear.

There are some preliminary points which should be explained before discussing my treatment.

Season for the Cure—I prefer to begin treatment in the Spring or Summer, because of the patient's sensitiveness to cold during the first three weeks after he discontinues the use of morphine. Moreover, the patient during his recovery is like a new born child, extremely susceptible to certain illnesses such as pneumonia and enteritis; and the improvement in health is so rapid, once morphine is eliminated, that good weather should be taken advantage of.

Place of Cure—I do not consider it indispensable to place the morphine addict in a sanatorium or hospital. (Isolation has its drawbacks as well as its advantages. Of course, it is very desirable to have direct control of the patient, but, on the other hand, the moral effect on the patient of seeing himself committed to a sanatorium or hospital is not good.)

Patients—There are two classes of addicts, namely, those who want to get cured, and those who prefer to continue in their addiction and must be subjected to treatment against their will. The majority belong to the first class and addicts of the other class are very rare.

Most morphine addicts, during the first two or three years of their vice, treat the matter of getting cured as something they can and will attend to later

on. In the meantime, they honestly try to decrease or suppress the drug through their own efforts. Finding it impossible they begin to consider treatment. In the fourth year, sensing ruin and disaster, they consult a doctor. This is the favorable moment for his cure. All the circumstances are going to help and the patient, anxious to get cured, will co-operate with all energy at his command, provided the treatment does not subject him to physical torture.

There are patients who deserve and should receive every mark of sympathy. The other type, the recalcitrants, are not only morphine addicts but also degencrates or otherwise mentally deranged.

There are cases where treatment can not be applied and the patient must be left to his addiction. This is so in various chronic diseases, especially in far advanced cases of tuberculosis or cancer, where the suppression of morphine is torture to those addicts. We shall, therefore, as a subject for treatment, consider only the morphine addict who is free from any complication of bodily or mental disease.

Sex — My personal view is that the difficulty of treatment varies according to sex, and that it is easier to cure women than men. Women, during all phases of addiction, show greater stamina and courage than men and take the treatment with greater faith and optimism. Men require stronger doses of the drug, not because their constitution is stronger, but because they are morally more impaired than their fair co-

sufferers and need, therefore, a higher co-efficient of intoxication.

At the beginning of treatment, I always visit women patients once a day, and later on, when the morphine injections are stopped, twice a day. Men have to be visited at least twice a day at the beginning and require moral aid, particularly at night.

Causes of Intoxication—The first thing to do, at the beginning of the treatment, is to inquire into the cause that drove the patient to drug addiction. If it was because of illness, it is easier to cure than if he took to the habit because of grief or affliction. I also attach a great importance to the environment in which the patient lives. It is very difficult to cure two morphine addicts living together. A constant watch must be kept over them unless they are subject to hospital rules. If the same patients are separated, it is not necessary to watch or restrain them in the treatment.

Previous Treatments — Previous treatments are a great asset. I have always found it easier to cure those who have already been treated. They know the difficulties that must be overcome, and when they realize that no suffering is entailed, they do their best and co-operate enthusiastically in the task.

Degree of Intoxication — The difficulties of the treatment are, of course, in proportion to the extent of the intoxication. An addict in the first or second period has greater chances of recovery than one already in the third period, or period of destruction, when the treatment is hardly productive of practical

results. In this pitiful third period the patient, when deprived of morphine, lapses into such a state that it is almost charitable to let him continue with the drug. Fortunately addicts in this incurable stage are very few.

The First Step in the Treatment—One of the first things to do before commencing treatment is to study the moral condition of the patient and satisfy yourself as to whether he has a sincere desire to get cured. This is very important, because many addicts go to a doctor intending to deceive him, and with the sole purpose of getting a supply of the drug, as they sometimes encounter great difficulties in procuring it. Once I am convinced of the patient's earnestness, I submit him to a "will test," to which end I ask him to make the following sacrifice:

He is to decrease of his own accord the morphine dose at every injection during five or six days, without, however, going under the limit of the *de luxe* or luxury dose. This apparently small effort is nevertheless a gigantic achievement for the addict. If he is successful, I then measure the patient's will according to the quantity of morphine he has diminished during the test. I then divide the *"de luxe"* or luxury dose in equal parts. If the total dose, for example, is sixty centigrammes a day, I divide twenty centigrammes (*de luxe dose*) into ten parts so as to gauge exactly what his voluntary effort has been. If the test has been of five days' duration and in that time the patient has diminished his dose by six centi-

grammes then his will power is equivalent to "three." We then have the necessary means of determining the precise moral state of the patient with this scale and measure.

I then make the patient acquainted with this fact, showing him the importance of truthfulness in all our dealings, pointing out how any false statement will hamper any treatment based on such statement and how failure may result.

The Treatment — The patient has almost reached the "Vital" dose period after the test. This reduction has served the purpose of measuring his will power and of impressing upon him the importance of continuing the reduction of the dose. I endeavor to persuade him that it is a painless treatment, and then proceed to prescribe the other drugs to avoid and prevent any physical suffering. This is the crucial point, and the few drugs I shall describe briefly are the factors which decide the battle with morphine in our favor.

I use three drugs together, with which to combat the distressing pains of demorphinization, namely: valerianate of ammonia, curare, strophantin or spartein. The first anti-spasmodic and sedative, acting on the central and periferic nervous system. Its powerful action has proved successful in the treatment of delirium tremens, chorea and tetanus. Its use in disintoxications of all sorts is easy to explain when we consider its great sedative action. The moment morphine is suppressed, we lift a heavy slab

that has been weighing on the nervous system, setting up a violent reaction that produces the profound disturbances already described. It is necessary, therefore, to substitute for that weight another to regulate this reaction and permit a gradual lifting of the pressure of the morphine, to which the system has been accustomed, by the administration of another drug similar in action but not in effect. This is exclusively accomplished by the valerianate of ammonia.

The other remedy, "Curare," is used to combat the muscular symptoms, especially those in the arms and legs, the spasmodic contraction, pains, etc., that show the havoc played by the drug on the muscular and nervous system. "Curare," however, is a dangerous drug and its application should be under great care. It is the juice of the plant known as "stryenos", used by the Indians of South America to poison their arrows in time of war. It grows principally in the basin of the great Amazon River. It is a very active poison and a small wound from an arrow poisoned by it will kill a man or animal within four or five hours. It has not been heretofore employed medically and is used principally in laboratories as a testing substance to produce artificial paralysis in animals. It has been used in tetanus and hydrophobia with some success.

Curare has a specific action on the motor nerves of the muscles. Large doses will produce death through paralysis of the respiratory muscles and through the excess of carbonic acid in the blood

caused by diminished breathing. This special action on the motor system makes it useful in the process of demorphinization. It can be taken by mouth, but is dangerous in hypodermic injections, and can be administered without danger as it is rapidly eliminated.

Caution is necessary in its use, as it is not manufactured of standard strength and varies according to the manufacturer's method of production. It is advisable, therefore, to test its strength on dogs or rabbits before giving it to the patients. The drug, though dangerous, has no serious consequences if used with this precaution.

The other two remedies, strophantin and sparteine, are used as aids in the treatment of morphine addiction, to tonify the heart when endangered by discontinuance of morphine. They really should be classified as supplementary remedies to administer for cardiacal symptoms that may manifest themselves. I generally prefer strophantin to sparteine, because of its action on the tissues of the heart and its diuretic properties. In these conveniently prepared remedies we have the means of combating pain in the demorphinization of patients. The treatment commences as follows:

Let us assume that the patient has been taking four injections of morphine a day, one at ten in the morning, another at two p. m., the third at six p. m. and the fourth at eleven p. m.

I substitute for the morning injection of morphine a strong dose of the potion and delay giving it as much as possible, say one or two hours, until the patient begins to feel the craving for morphine. Immediately after taking the potion, the patient feels a sensation similar to that produced by the injection of morphine.

The nervousness disappears and a general lassitude follows as with morphine. The first psychological symptom appears at the same time, in the form of that optimism and faith that the patient manifests during the treatment. After five or six days of this method I suppress the second injection of the drug, substituting for it a corresponding dose of the potion. After three or four days more I endeavor to entirely suppress the two injections, so that by the tenth day of treatment, the patient should have only two injections, one at six in the afternoon and another at eleven o'clock at night.

The patient is now being injected with morphine in doses far below the "vital dose," and the first symptoms of demorphinization appear. These symptoms are a profuse perspiration and frequent diarrhea, produced by the nervous shock to elimination of morphine from the system. I try to allay these symptoms if they are too pronounced. I prefer, however, to let the organism do its work, in spite of the patient's discomfort, if the symptoms are not too severe.

By this time I am giving the patient two morphine injections and as many doses of the potion as the

number of injections suppressed. The strength of the patient must be watched constantly, and on no account must he be allowed to experience depression nor lose any of the courage and faith with which he began the treatment. He will surely miss the morning injection of morphine at this stage, not so much on account of the action of the drug, but as a psychological phenomenon due to the injection mania. Perspiration and elimination will distress him and his morale should be kept up with constant encouragement. He should be made to realize that he is suffering no physical pain and that the slight disturbances he feels should be willingly tolerated by him, as his very life is at stake, and that a small effort of the will is all that is necessary on his part to win.

The appetite of the patient is often very good in the morning, and he is encouraged to eat heartily at breakfast and to indulge in a glass of Port or Malaga wine. He is made to rise early and walk in the open as much as he can. He is admonished not to go near the places where he was in the habit of procuring the drug. If his appetite is not good at this stage of the treatment it is a bad sign. It is because the elimination of the morphine was not properly started. This stage of the treatment can be justly described as that of the *equilibrium of disintoxication*. On the one hand pain is allayed by means of the potion, a relative quantity of morphine acting on the system, while on the other hand the elimination of the poison through perspiration and the intestines

sets in. The problem consists in the maintaining of this equilibrium that is to one the keeping down of the craving for the drug, the continued decrease in the morphine dose and regulation of the intestinal disturbances. To do this the dose of the injection at six o'clock in the afternoon is decreased and a small dose of the potion is given by mouth at the same hour. Both of the injections are omitted after the fourth day. The patient by now is only getting one injection of morphine and three doses of the potion every twenty-four hours. I take the three doses of the potion at this stage and divide them into equal parts, so as to give the patient a dose every hour, from the hour of rising in the morning until his retiring at night.

Only during the first two days is there any hardship at this time. On the third day the patient feels he is getting better. He still has the "needlemania," or craving for the injections, as is evidenced by his intense pleasure in the only morphine injection he now gets, the one at night time.

This mania persists notwithstanding the patient may have passed the day without pain, with only slight fatigue and with but slight intestinal trouble. The appetite continues to improve, though not as greatly as it will improve later on.

The Crucial Period of the Treatment—By this time the critical phase of the treatment is reacted on, the proper handling of which ultimate success depends. The patient is getting only one morphine injection at

night, and a potion every one or two hours. The intestinal disorders are becoming aggravated and will require treatment so as to obviate their depressing effect on the patient. Bismuth may be resorted to, but in no case opiates as a patient is in a most favorable condition to the contracting of a new drug habit. The patient should avoid all mental or moral stresses until his cure is complete, since they tend to undo what has been accomplished up to now.

At this stage of the treatment I adopt one or the other of the two following courses: If there be any weakness in the patient's morale, I gradually suppress the one remaining dose of morphine, diminishing it by two centigrammes a day. If the patient is cheerful and happy, I suppress it entirely after the second day, encouraging him with the assurance that his self-denial in abstaining from the last dose will be repaid by his absolute cure.

Most patients accede readily to this final appeal and are anxious to bid their last farewell to the poison.

The patient, from now, must not be left alone. He needs the doctor's moral support, and the potion must be continued, as a guarantee against any suffering. The first three nights the doctor must sleep in the same room with the patient and show him that he has the hypodermic syringe and the morphine ready to be administered if the symptoms should warrant it.

The greatest obstacle now is sleeplessness. In the first days of his regained normal life, the patient will

sleep only two or three hours. He will lie awake, quiet, musing on his past life of drug addiction. All through the day and night, hourly, the potion must be administered. The symptom which will principally indicate if the treatment has been entirely successful is increased appetite, which becomes ravenous. The patient is hungry continuously, and wants to eat frequently. I am in favor of letting him gratify his appetite and of giving him all he wants to eat as often as he demands it. There is no danger in this.

The ability to fall asleep will come suddenly. The patient will all at once sleep for seven or eight hours, having slept only two or three hours during the previous night. This is the last physical and moral impetus the ex-addict receives towards his complete cure. If at the end of the four days following complete suppression of morphine the patient sleeps, there is assurance that the patient is definitely saved.

The potion may now be withheld without difficulty, as the patient will stop it gradually of his own accord, without difficulty, and sometimes forgets all about it. He is now a normal person again. The change in his spirit or state of mind is so marked, that he can be easily persuaded to discontinue the potion as unnecessary to his comfort.

The intoxication of morphine is interesting only from the experimental point of view. Clinically it offers no interesting medical symptoms. In morphine addicts,

free from other complications, the kidneys and intestines function perfectly, once the poison has been eliminated, and fifteen days after the last injection the system is free from any traces of the drug, capable of producing signs of intoxication. The elimination is, however, not complete, until about a month after the last injection. Usually, not until then can the patient's condition be considered "negative".

Recovery—After no other illness can it be as truly said of a patient that he has been "born anew," as after recovery accompanied by such a degree of joy. The first week after the poison has left the system, the buoyancy and optimism of the subject are really remarkable. Improvement takes place daily. The eyes acquire new brilliancy and life. Weight increases so rapidly that I have often seen gains of from ten to twelve pounds per week. The whole system gives evidence of vital exuberance, following the functional regeneration of all the organs. Notwithstanding this general improvement in health, the patient remains in a dangerous condition of susceptibility to other diseases, particularly of the lungs, and must be carefully guarded.

The moral recovery is always slow in spite of the cheerfulness of the patient. Traces and signs of the deadly poison still are apt to reappear, and at least two or three months are required before the complete cure is effected. The patient should be kept

away, during that time, from his former haunts and even the clothes he wore during his addiction should be destroyed, for the most insignificant detail may bring back memories that will incite his old habit. During the recovery of patients I have often adopted the measure of bringing them in the presence of addicts in advanced stages of intoxication, so as to impress the patients with the terrifying effects of the poison. They recede from the scene in horror and in hatred of the drug.

It is also wise to encourage the patient to keep himself amused and to do some bodily work. I do not recommend outdoor life in the country, because the opportunities to be alone are there so numerous, and the patient, when alone, is prone to dwell upon his habit. Gymnastic exercise can hardly be recommended, as it is likely to be overdone, and in any case must be taken with great moderation.

Difficulties Encountered—In some cases the will power of patients is at such low ebb, that it is essential to watch them very closely from the very start. They must be treated in the same way as the recalcitrant and obstinate patients, and should be dealt with gently, but firmly, exhorting them to observe the rules of the treatment.

In some patients' disorders symptoms occur which may obstruct the course of the treatment, such as disturbances of the digestive organs with accompanying loss of appetite, malnutrition and slow building

up. This is one of the most important concerns of the practitioner. Hyperchloridia and enteritis are very frequent and should be treated, suspending the treatment for morphine addiction in the meanwhile. Proper nutrition is necessary for successful treatment of the drug habit and, moreover, strengthens the morale of the patient.

Lack of sleep is another difficulty, one that seriously threatens the ultimate success of the treatment. Sometimes, after suppression of the last injection of morphine, in spite of the satisfactory condition of the patient, he will find it difficult to sleep. I have seen patients that could sleep no more than two hours daily after three weeks' treatment.

Every effort should, however, be made not to give hypnotic drugs to the patient. He should never be left alone. He should be talked to and cheered, and only in extreme cases should any sleep producing drugs be resorted to.

Conclusions—How does a patient feel after having been cured of morphine addiction? It would be perhaps an exaggeration to say that he is the same as he was before his addiction to the drug. It is, nevertheless, remarkable how nearly normal he finds himself again, even after a long period of an intoxication, so deadly and destructive. All the functions get back to their normal state and only in some organs, especially in the lungs and kidneys, are there any traces of deterioration or debility. The patient should not lead

a strenuous life for some time. It is a strange fact that symptoms of nephritis are likely to appear a year or two after the patient has been cured of the drug habit. But in general the patient can be said to find himself again in sound health after the treatment.

Chapter XI

THE MYSTERIES OF THE DRUG EVIL

THE drug evil is fraught with mystery. In the clinic, science finds itself before a problem full of puzzling and obscure angles, impossible to explain. Socially, addicts may be considered as exotic monsters governed, to all appearances, by a different brain to that of normal beings.

The psychology of the addict offers an immense field of study, full of undiscovered secrets. To the philosophical practitioner the study of these mysteries is a source of constant surprise, and the psychic and organic phenomena that are observed will determine the scientific principle that will put the addict in his proper place, within the domain of Pathology.

Drugs in themselves have only been experimented with as curative agents, not as the cause of one of the greatest evils of humanity. Of what does the hidden power of morphine and opium consist, thus to imprison the world, destroying thousands of human beings? The medical student, the philosopher and the sociologist must answer the question when the ravages of the drug addiction shall have spurred suffering humanity to the scientific research of the evil.

The Immunes

As diseases develop more favorably in some individuals than in others, so it is with drugs. Some people are absolutely immune to the poison danger as a profound hate and repulsion to any intoxicating drug. In hospitals such cases are often met with.

Some patients, after having been two or three days under the action of drugs, will show a marked inclination and propensity for them. Others, even under acute pain will reject with repulsion the employment of poisonous drugs. It often happens that a small dose of morphine, given to a patient the day after a surgical operation has been performed on him, will so upset him, that the drug instead of calming will add to the patient's discomfort. I have observed such doses, especially in women undergoing abdominal operations, upon whom morphia would have such a depressing moral effect that it was necessary to suppress the drug and let them suffer. On the other hand, patients who during two or three days took only a few opium pills were so susceptible to the drug that a small dose was enough to make addicts of them in time. What is the cause that regulates this predisposition and immunity? Nothing positive is known about this. It has been said that individuals with strong muscular development are immune to drug addiction, but my own observation will not warrant this assertion.

A physical culture teacher, who had been a professional boxer, had to have two teeth extracted because

of maxillar inflammation. To allay the pain he was given two centigrammes of morphine a day, for a couple of days. This proved sufficient. He started by taking an injection every day and before two weeks had elapsed, he had become a veritable addict. This patient who, when I met him, was already in the third period of intoxication had been an athlete of great muscular development and was mentally fit. Still he easily fell a prey to morphiomania and it proved a very hard case to get rid of the drug habit.

Another case is that of a circus performer, who fractured his leg during the acrobatic movement. During his stay in the hospital he was given four injections of morphia and during the rest of the treatment no drug was given. After two months, coincident with the end of his cure, he took violently to the drug addiction.

Against these two perfect types of muscular individuals, I can quote cases of immunity among the weakly constructed.

In the home of a morphiomaniac lived her maid, a young girl, delicate looking, who suffered from anaemia, due to malaria. Encouraged and induced by her mistress, she took several injections of morphine, thus perilously courting the danger of becoming an addict. But she would say that the drug used to cause her such an extraordinary malaise that she simply hated the sight of it and could not understand how other people become addicts.

I believe these cases suffice to show that muscular development of the body has nothing to do with immunity to drugs. I rather believe in a "physical immunity," the outcome of a special constitution of brain that will not accept any poisons in the system.

Neither do I think that the "will" has any influence on this immunity, as those who are immune need not exercise their will in the least, to free themselves from the clutches of the Idol. It is a natural and instinctive phenomenon, as with animals that run away from tobacco smoke.

Love Among the Addicts

Between people suffering from the same disease, there exists an affinity and sympathy that makes them understand one another better than do normal people. Among those afflicted with tuberculosis this is especially true. It is the misfortune that unites them. Love exists also among incurables, and does not exclude even lepers. The diseased live, as it were, in a world of their own, incomprehensible to us, such as the world in which the blind live, with psychological laws that we who are blessed with the sense of sight cannot understand.

Something similar takes place among drug addicts. Their passions, mercilessly persecuted by society, take refuge in their souls, in the souls of their fellow sufferers. A lady of high social standing addicted to morphine, will be insensible to the attention of men in

general, but will readily join her life to a mate in drug addiction.

As regards the effects of these drugs on the sexual instincts, it must be said that while morphia has a paralyzing action, cocaine on the contrary is a powerful agent, an incitement to lust and abnormal pathological conditions.

Chapter XII

SOCIAL REMEDIES

THE prevalence of drug addiction presents a fearful problem for the human race. Should the evil continue to increase at the present rate, there is reason to believe, that the number of drug addicts in the United States will reach millions. It is therefore imperative that energetic measures be taken against such a menace — measures similar to the splendid fight being used against tuberculosis. For the United States the problem is graver than for the other countries by reason of its geographical position. From the East it receives the influence of the vice as it exists in old Europe, especially in Paris, the largest dope center in the world. To the west is China and the other Oriental countries, where the use of drugs is traditional. On the south there is to be feared Mexico, where the use of hasheesh is so common. In this situation especially efficient measures should be taken by the United States against the drug evil, not only along medical, but also along social lines.

Any organized attempt at combating and eradicating the evil must necessarily be pursued against the drug addict, and against drug addiction in general.

The drug addict presents the problem solely within the province of medical science. This phase of the

problem could be met like that of tuberculosis, and would primarily involve the following measures:

1. The establishment in each State of a hospital or sanatorium exclusively for the drug addicts.

2. The collaboration of a group of medical experts.

3. The treatment of the patient in a humane manner, and solely by scientific medical methods.

4. The complete isolation of the patients, so as to forestall their disposition to propagate the vice.

5. The establishment of special sanatorium where convalescents could be kept for at least three months; and

6. The enactment of a special law requiring a confidential record to be kept of every patient who will be obliged to undergo a medical examination every three months for a period of two years after his cure.

Drug addiction as a social evil should be attacked by the following means:

1. Associations for the prevention of the drug vice, whose activities should consist of:
   (a) Educational campaigns in the schools.
   (b) Propaganda through the press, moving pictures, etc.
   (c) Moral suasion on drug addicts with a view to inducing them to submit to proper treatment.

2. International agreements regulating the manufacture and sale of alkaloids.

3. Laws requiring every drug addict to register officially, and according him the period of one year after such registration to effect his own cure.

4. A special police corps properly instructed in the matter of coping with drug addiction.

5. A minimum penal servitude of fifteen years for the illicit sale or possession of drugs.

6. International police co-operation.

These measures properly carried out, may in great measure counteract the dreadful influence of the Idol. I do not contend that the evil could be entirely wiped out. But that fully 60 per cent of those who would normally be lured by the Idol could be saved.