

THE MEDICAL ASPECT OF THE OPIUM QUESTION.

IN connection with the Annual Meeting of the Society for the Suppression of the Opium Trade, a conference on the medical aspect of the opium question was held at the Friends' Meeting House, St. Martin's-lane, on the afternoon of Tuesday, May 31, 1892.

The chair was taken at three o'clock by B. W. Richardson, Esq., M.D., F.R.S.

The SECRETARY announced that a communication expressing regret at inability to be present had been received from Sir George Birdwood. Dr. Farquharson, M.P., had written stating his intention of being present if his engagements permitted. Dr. F. J. Monat wrote that he was detained on the Continent.

Dr. JAMES L. MAXWELL, M.A., secretary of the Medical Missionary Association, hon. sec. of the Christian Union for the Abolition of the Opium Trade, and formerly medical missionary in Formosa, read the following paper :—

OPIUM IN CHINA

FROM A MEDICAL POINT OF VIEW.

Of the 90,000 chests of opium annually exported eastward from Calcutta and Bombay, 70,000 chests, roughly speaking, are destined for China. The other 20,000 chests are distributed throughout the Straits Settlements, the Malayan Peninsula, and the Islands of Netherlands India, Java taking the largest share. Each of these chests contains 140 lb. weight of the drug, so that the 70,000 chests of Indian opium intended for Chinese consumption represent close on 10,000,000 lb. weight of the drug. In China itself it is reckoned, at the *lowest* computation, that three times the amount received from India is annually grown,

manufactured, and consumed. We cannot, at the present time, therefore, think of China as using less from year to year than 40,000,000 lbs. weight of opium, and the probability is that her people consume much more. Of course, also, it is understood that the whole of this vast quantity is used, not for medical purposes, but in order to sensual indulgence. The quantity required for proper medicinal uses even in so vast an Empire as China would be amply covered by 2,000 to 3,000 chests. (Supposing her population to amount to 400 millions, that would allow quite 8 grains per annum for every man, woman, and child throughout the Empire.)

Besides this enormous amount of solid opium exported from India or grown and manufactured in China, we have, in the last twenty years, to reckon with a further factor, in the export to China of almost incredible quantities of morphia. I have it on the authority of one of the leading wholesale chemists in the City, that the annual export of morphia from London to China does not now amount to less than 50,000 oz. The probability is that it is over rather than under that amount, and its notorious purpose is for use in the form of powders or pills to take the place of opium that is smoked.

The average daily minimum consumed by an opium smoker is variously estimated at 1 to 3 mace or drams; 3 mace and under is nowhere considered a heavy habit. Over all China $1\frac{1}{2}$ drams may be safely taken as a very moderate estimate of the daily consumption by the smoker. The half of this will be inhaled in the morning, the other half in the evening. Wealthier smokers, of course, use more; many going as high as an ounce a day.

In estimating the number of smokers and eaters of opium in China, we have to remember that the actual quantity received from India or grown in China is not the basis on which such estimate is formed. Out of 1 oz. of the ashes of prepared opium of first quality 8 mace or $\frac{4}{5}$ oz. of good opium extract can again be prepared; and out of 1 oz. of this second preparation 2 mace or $\frac{1}{5}$ oz. of good smoking opium can again be

obtained. And lower down than this there is now a large class of the very poor who, to satisfy their craving, eat the ashes of the third burning. Twenty to twenty-five millions is the ordinary estimate of the number of opium consumers now to be found in China, and it affords a somewhat terrible view of the future of China to recall the fact that ten years ago there were, according to a report of the Inspector-General of China Customs, at least four provinces of the empire where no poppy was grown, whereas now every province grows it freely; that, according to the same testimony, ten years ago the amount of opium grown and manufactured in China only equalled that from India, whereas now it is three, and not improbably six, times as much; and that, according to the same witness, the number of smokers ten years ago could be reckoned with fair probability at 4,000,000, whereas now the lowest estimate is 20,000,000 to 25,000,000.

THE FORMS OF THE OPIUM HABIT.

Turning now to the opium habit itself, there are three forms under which it is indulged in China. Opium is smoked, and that is by far the most common form; or it is eaten, an occasional habit with many smokers, and a regular habit with some to whom time and money are of importance; or finally, as in later years, it is swallowed in the form of the alkaloid morphia. Hypodermic injections of morphia are *not yet* in much vogue in China.

INTERCHANGEABILITY OF THE VARIOUS FORMS.

To us, as medical men, there presents itself in connection with this brief enumeration of drug forms the immediate question, Are these various forms interchangeable? Does the opium-smoker, as a matter of fact, from time to time swallow a pill of solid opium in room of his smoke, and does it satisfy his craving? And, further, does he, in lieu either of the smoke or of the solid opium, take, either occasionally or regularly, powders of morphia, and do they fulfil the same purpose? Those of us

who are acquainted with China have no difficulty in answering this question. The Chinese opium-smoker readily recognises that when circumstances make it difficult for him to indulge in the usual and more congenial form of inhalation, he can satisfy his craving either with solid opium or with morphia. It is constantly done. A somewhat telling illustration of this interchangeability is given us by Dr. Dudgeon, of Peking. When morphia was introduced into China, a good few years ago, it was widely advertised alike by unscrupulous Europeans, and by equally unscrupulous Chinese, as a splendid remedy for the opium habit; and the Viceroy, Li Hung Chang, ordered large quantities for his troops, to cure those of them who were opium-smokers, and gave laudatory tablets to the sellers. Dr. Dudgeon had before this issued a placard warning the Chinese of the deception being practised upon them by the white powders, and one of these placards was forwarded to the Viceroy, after which the supplies to the troops were withdrawn, His Excellency expressing his intense displeasure that he should have been so deceived. It is, I think, important that this interchangeability of the forms of the drug should be clearly recognised. It implies that, to all intents and purposes, the habit under each of the forms is the same. There will, of course, be modifications as to quantity, and almost certainly also modifications in the intensity of influence upon the system; but, if a smoker of opium finds an equivalent which satisfies his craving in the form of solid opium or of morphia swallowed by the mouth, it is evident that the potency of the inhaled vapour is identical in character, if not in amount, with that of the powerful alkaloid. The recent re-assertion by Sir George Birdwood of the singular statement that the smoking of opium is as harmless and as powerless as the smoking of willow-bark or of brown paper, and the approving reference by Sir William Moore to this statement, make it needful to show ground for rejecting such an assertion as being as untrue to fact as it is disastrous to the fair consideration of a subject involving the welfare of the great races of the East.

THE TESTIMONY OF MEDICAL MISSIONARIES.

The evils of opium-smoking in China are forced on the attention of every one who practises medicine among them, whether he cares for the subject or not. I need hardly inform you that the great bulk of foreigners who practise medicine among the Chinese are medical missionaries. There are at least 110 fully-qualified medical practitioners from this country and from America who live and work among the Chinese from day to day. There are foreign-community physicians at some of the ports in China, some of whom also see a good many Chinese patients, and whose testimony on the subject, coinciding as it does with that of the missionaries, is of importance, but the great bulk of evidence on such a question as the effects of opium on the Chinese must necessarily proceed from the missionary physicians. It should hardly vitiate the evidence of such men, that besides endeavouring to do their utmost in healing the sicknesses of the Chinese, it should be part of their duty, as the servants of Christ, to teach men to speak the truth. It is notorious enough that the testimony of the medical missionaries of China is readily and eagerly enough accepted on all other matters bearing on disease in that empire; and it is, I must protest, somewhat hard that just because it touches upon the Indian revenue, their testimony as to the effects of opium on the physical and moral condition of the Chinese should be received with so much hesitation.

What, it may be asked, are our opportunities of information? Well, you cannot open a hospital or dispensary without, in the course of a few months, having to deal with large numbers of people who come to you as patients seeking deliverance from the opium habit. Looking over my own notes I find that from September 7, 1866, to December 31 of the same year, a period of less than four months, I had, in a comparatively small seaport village in South Formosa, 649 patients, and that of these, 109 presented themselves as opium sufferers seeking a cure. I find another note—viz., that in the first five months of 1869

I had in the capital of Formosa 1,147 patients, of whom 250 presented themselves seeking deliverance from the bondage of the opium habit. That is a specimen, and a moderate one, of the opportunities which from year to year the medical missionary has of seeing and dealing with the opium habit. Yesterday I had two letters which tell of similar experience in other parts of China. Dr. Cousland writes of his experience at Swatow, in the Canton province. "For three years I was in charge of one of the largest hospitals in China, and during that time more than 1,000 men applied to me to cure them of the habit of opium-smoking. These men came from a large number of different towns and villages, some of them many miles distant." Dr. Galt, formerly of Hang-chow, the capital city of the province of Che-kiang, says, "At the hospital of which I had charge, about 250 cases were admitted annually for the purpose of breaking off its use," and, as Dr. Galt was seven years in charge of that hospital, he certainly had abundant experience. The late Dr. Osgood, of Foochow, treated in his opium hospital in that city no fewer than 1,700 patients. The late Dr. Kenneth Mackenzie treated in his hospital at Hankow no fewer than 700 patients in one year, and, later on, at Tientsin, in less than one year he saw no fewer than 5,000 opium patients. It is a very small estimate indeed that would make 20,000 patients suffering from and seeking deliverance from the opium habit to pass through the hands of medical missionaries in China every year. And this, remember, takes no account of the large number who come into opium refuges under the charge of missionaries who have no medical qualification, and of the yet larger number who apply to Chinese doctors for relief from the opium bondage. It cannot be said at least that we have not ample opportunity of making ourselves well acquainted with the evil and its results.

DISTINCTION BETWEEN WEALTHY AND WORKING-CLASS VICTIMS.

In dealing with these results, let me first remind you that we must draw a well-marked distinction between them as they

affect the wealthier, and as they affect the working classes. The failure to emphasise this distinction has led to a good deal of quite unnecessary confusion. The wealthier classes—those who have plenty to eat and to drink, who are not driven to the wall by want of work or by a brief turn of illness—do not, as a rule, show the evil results of opium-smoking as the working classes do. You may find not a few of the wealthier opium-smokers who, after a good many years, show very little outward trace of physical deterioration. Many of the very wealthiest, on the other hand, in spite of their advantages, are physically and morally ruined by only a few years of the habit. Sir Thomas Wade, Dr. Dudgeon, of Peking, and others have amply confirmed this statement. It is difficult to say why some should suffer so much more than others, but of this fact there is no question.

It is among the working classes of China, however, that we see the evil effects of opium in an unmistakable way. The Chinese working man has not much to go upon at the best of times. It is imperative that he live very frugally. With wages at 6d. to 8d. a day he cannot afford many luxuries, and if he is married and has a family, he will certainly need all he can earn. He is tempted to take opium, he spends half of his wages on the drug, and after a few months he is a slave to the opium habit. What does this mean in relation to food? It means that he and his family are unnaturally pinched for food. The wife must work as well as her husband, and when the least stress of illness or want of work comes he is immediately in difficulties. Why should he be so? The answer brings before us the first and most universal and most notable evil effect of the drug. It makes every one of its votaries, rich and poor alike, a hopeless slave. I have said above that the visible effects of the habit are not by any means so well marked on the rich as on the poor; but let a man be ever so rich he is one with the poorest in this that once under the power of the habit he is a veritable slave to it.

THE IMPERIOUS NATURE OF THE CRAVING.

Once the habit is formed, the craving for the stimulation of the drug is greater than that produced by any other article used by men. The man is helpless before its demands. He is poor, and he would fain throw aside the habit which impoverishes him more and more; he is out of health, and he recognises that the habit is the worst enemy of his strength, and he earnestly desires to be done with it; he sees how it is embittering his family happiness and wrecking the prospects of his children, and there are few sacrifices he would not make to secure deliverance; he may even begin to loathe the moral degradation of his vice, and curse himself as a fool, and call to heaven to help him, but it is of no avail. When the craving comes, he is miserable all over, his bones and joints ache, his eyes and nose begin to run over, he cannot think nor work, nor sleep, and if it is prolonged he feels as if he must soon die. He cannot resist this tremendous physical craving. Whatever else has to be given up, this dreadful demand must be satisfied. There is no known thralldom like that of opium. This is true of the rich man with his 8 mace or 1 oz. a day, and true of the poor man with his $1\frac{1}{2}$ dram. All are bondslaves.

NO MODERATION POSSIBLE.

And when we say that the word *moderation* is a word which cannot properly be applied to the opium-smoking habit, we mean what we say. Moderation, as applied to alcohol or tobacco, is a use which implies ability to stop when you please, to throw aside the habit without any undue strain, either on the physique or on the *morale* of a man. There is no such moderation known under the once-established opium habit, though only the *minimum* of the opium smoker is the daily allowance. It is this which makes the medical men of China say that the evils of opium are far worse than those of alcohol. Our Indian friends of the Civil Service, who see only the outside quiet of the regular opium eater or smoker, do not realise this. They

think only of the violence and brutality of the confirmed drunkard. They do not know of the slavery into which every opium *habitué* is brought, and that the moral manhood of all who are thus enslaved is seriously and permanently injured.

THE WASTE OF TIME.

But, second, it is impossible that so powerful an influence on the nervous system as this slavery exhibits should not have other manifestations. The daily cycle of action and reaction of powerful stimulus and abnormal depression produced by the drug, has other consequences of considerable importance to every working man. Not only does the smoking of a mace of opium in the morning and of another in the evening involve the waste of an hour at each end of the day, and, in the case of multitudes, of another hour for a third mace in the middle of the day, but it also involves a period before the smoking begins in which indolence and good-for-nothingness are the marked features. How often have we had to recognise it and feel it in our opium-smoking teachers, whose powers of mental balance visibly failed as the time for the renewed stimulus was drawing on! And as in the literary man, so in all others, the stimulus is good only for so long, and, as the downward influence begins and continues, so does a period of increasing incapacity manifest itself till the artificial stimulus is again applied. And at such times no whipping up is of any avail. You may adjure and urge as you please, it is of no use, and even a physical lash would be of little service.

EMACIATION PRODUCED.

One of the most visible physical results of the habit is the measure of emaciation it produces. In women this is more visible than in men (Galt), but no one can have much to do with opium-smokers of the working class without recognising it. "There can be no doubt," says Dr. Dudgeon, "that the average weight of opium-smokers falls considerably below the standard for an ordinary healthy man of the same height."

Dr. Pritchard, of Peking, puts the average diminution of weight at 20 lb. Further it was my own practice, and I believe it is tolerably universal in China among medical missionaries, dealing with those who cannot be always kept under observation, to regard the rapid putting on of flesh as an almost necessary evidence of abstinence from the use of the drug. I would deliberately warn my patients who were being treated by remedies used at home, that, if within fourteen days or three weeks they did not begin to put on flesh, I should know that they were deceiving me. I notice, by the way, that Dr. Huntly's experience of opium-eaters in Rajpootana as to a measure of emaciation induced by the habit and to the rapid putting on of flesh when it is abstained from is identical with ours in China. I do not, of course, affirm that there are no stout opium-smokers, especially among the rich. What I say is that, among ordinary opium-smokers, the habit, ere long, tells on the mass of them in the way of emaciation. Perhaps it may require the use of a certain quantity before this effect of emaciation can be produced. So we would gather from an answer given on one occasion to Dr. Little, of Singapore. In an opium-smoking den there he found, on one occasion, only one man who was stout and healthy-looking in the company, and, on expressing his surprise that this man, who had been a smoker for five years, should look so well, his companions said: "Oh, he is a poor wretch who can only smoke his two candareen (one-fifth of a drachm) daily; wait till he gets richer and can smoke his ten (one drachm) and he will be thin enough."

EFFECT ON THE DIGESTIVE SYSTEM.

The effect of opium smoking on the digestive system is well known. Constipation is the rule among opium smokers; one movement of the bowels in eight to ten days being an ordinary condition. The food is only partially digested, the deterioration of nervous energy affecting the action of the stomach and intestines and of the whole glandular system. Curiously enough, one of the diseases which most frequently attacks and carries

off the advanced opium-smoker is uncontrollable diarrhoea, or opium-running, as the Chinese themselves call it. Occasionally such patients are brought and laid down at our hospital doors to die. The hurtful effects on digestion is an evil which the Chinese themselves readily recognise.

DIMINISHED VITALITY.

Dr. Little calls attention to dropsy from renal disease as attacking many opium-smokers, and both he and Dr. Galt and Dr. Smith, of Penang, and others are clear that it leads on to sterility. The main physical evil, however, is summed up in the words diminished vitality—a diminished vitality which exposes the opium-smoker to all kinds of diseases associated with deficient assimilation, to very fatal carbuncles, attacking rich and poor, to foul and indolent ulcers, to intractable anaemia, to extremes of indigestion, to violent neuralgia, &c. When diseases of any violent character occur, the opium patient is apt immediately to succumb. It may be true that we cannot point to any definite pathological condition continually associated with the opium habit (though it is too soon yet to speak dogmatically on the point), and we are blamed sometimes by those who ought to know better, because we say that the opium habit occasions the deaths of myriads of the Chinese; but we are quite sure, nevertheless, that we are correct. Intercurrent diseases of all sorts, fevers, dysentery, cholera, which so often appear in tropical and sub-tropical regions, find their easy and readiest victims in the opium smoker. They go down like flies at such times, while their non-smoking comrades hold on. But are not opium smokers and eaters found sometimes in men of advanced age? Yes. It is quite true that you do find not unfrequently men who have smoked for many years; but that does not invalidate our contention that the mass of opium smokers pass away before their time. And is it not true that the opium stimulus enables men to undertake great journeys, &c.? It is quite true that the powerful, artificial stimulus of opium enables such men as chair-coolies, &c., to start out briskly and

vigorously on somewhat heavy journeys; but it is also true that they do not endure—they are not as strong and fit for continuous work as their non-smoking neighbours, and no sensible traveller in China would ever have them if he could get others.

Finally, I should like a word or two on the two special benefits which have recently been alleged to be associated with the habitual use of opium.

OPIMUM NO PROPHYLACTIC AGAINST MALARIA.

First as to Malaria. It is boldly asserted that opium habitually used is prophylactic against malaria. Further, it is asserted that its very *common* use is limited to fever-stricken regions, that in such regions, for example, as Assam, the people away from the malarious valleys do not care for opium; and we are even told by Surgeon-General Hendley that the prophylactic value of the drug must be held to more than make up for any waste of money which its use may bring about. It is true that these statements are made by Indian medical men. I am quite certain that they have no application to China. It was my own lot to work in one of the most malarious regions of South-East China, the south portion of the island of Formosa. Malaria was everywhere, and everybody was more or less affected by it. I could not treat a single disease without taking it into account. Ordinary remedies for particular diseases, such for example, as affections of the kidney, would altogether fail in their action till the patient was under the influence of quinine. Now it is very singular that during ten years I never heard it suggested by a Chinaman that he took opium to ward off malaria, and the fact that malarious fevers were quite common among opium-smokers was something so well known to myself that the idea never suggested itself to me. Like many others who have dealt with opium-smokers, I was interested to find out what led those who came seeking relief to begin the habit, and here is a note which I wrote in 1867: "In not a few cases the practice is commenced in connection with some ailment accompanied with severe pain or other bodily distress, sometimes on the advice

of a physician, but more frequently on the advice of a neighbour who is himself a smoker. I have found in noting this point that dyspepsia is the most frequent cause of what we might call medicinal opium smoking, and that bronchitis and malaria, and the bodily distress which accompanied it, are the other most frequent causes." This you see was by no means for prophylactic purposes, but as a remedy for pain. I was never once asked during all my time in Formosa for opium to prevent or cure malaria. I entirely deny that in so malarious a region as South Formosa there was the slightest reason for assuming that the use of opium had anything to do with the prophylaxis of malaria.

Mr. friend, Dr. Cousland, of Chao-chao-foo, in the Canton Province, writes: "Of the anti-periodic effects of opium the Chinaman seems almost entirely ignorant, and the one supposed malarial manifestation they take it for (*pai sin*) is only held somewhat in check, while the habitual use of the drug aggravates the patients' general condition. I have never discovered that opium-smoking is commoner in the malarial than in the non-malarial districts with which I am acquainted, and a medical friend assures me that the habit is commoner among the hill people where he resides than among those of the plains where I am stationed."

It is well known that in the province of Shan-si, which is mostly a lofty plateau, and free from malaria, we have one of the provinces of China most cursed with the abuse of opium. Anyone who knows China would say, without a moment's hesitation, that the spread of the habit in that empire has nothing in the world to do with the existence or non-existence of malaria, and it remains to be seen what possible satisfactory explanation can be found of the fact that, if opium is a prophylactic for malaria, the respectable inhabitants of Burma should look upon the opium which we have introduced among them as a grievous curse. I am not asserting that opium has not its use in malarious diseases, but I do assert that, in these days of the cinchona alkaloids, for some men to defend and uphold the

habitual use of opium for its supposed small value in restraining the miseries of malarial diseases, is utterly unworthy of our profession.

OPIUM IN FAMINES.

The only other point is the question of the habitual use of opium in saving life in famine. Sir Wm. Moore says: "If the anti-opiumists succeeded in their endeavours to abolish the use of opium in India when scarcity or famine occur, thousands more would die than before." We all acknowledge, of course, that opium will take the edge off hunger, and that men who use opium as a habit do not eat as much as others do; but in the teeth of Sir Wm. Moore's assertion as to its saving life in famine, we would, without any hesitation, declare that in any well-marked famine, the habit of smoking or eating opium would simply result in bringing death to thousands who might otherwise have lived. The weakened vitality of the opium smoker may enable him to do with less food, but it won't enable him to live on roots, and bark, and chaff, and mud, as his non-smoker neighbour will contrive to do; and common sense would tell us that in anything like real famine, the opium *habitués* would be the first to go to the wall. I have asked Mr. A. G. Parrott his experience on this point, as a distributor of relief during the great famine in North China some years ago, and this is what he says: "The prevailing opinion of the workers, Messrs. Richard, Hill, Turner, James, Clark, and myself, was that opium smokers were less able to endure the privations of famine than others. Money went for opium which might have procured good food. They tried to live on weeds, roots, bark, and seeds mixed with mud, and, being smokers, had less appetite for this than non-smokers. As we went from house to house we invariably found that the smokers were the greatest sufferers."

It is impossible, however, in dealing with this vast subject to crowd into a brief paper all that should be said to set forth the evils produced by the opium habit. I have no time to speak of the moral degeneration which is one of its most striking charac-

teristics, nor of the social misery which it produces wherever it exists, nor of the vast army of suicides which its constant presence in the midst of an excitable heathen people so readily produces. Enough that all of us who have seen its workings in China are perfectly satisfied that it is an unmitigated curse to the country, and that there is no hope for the dawn of a better day till England withdraws her hand from the trade.

DR. DONALD MORISON, of Rampore Bauleah, Bengal, then read the following paper:—

The medical aspects of the opium question have been brought prominently forward within the last few months by the *London Times*, at the Society of Arts, and in the *Lancet*. The importance of the question and the amount of attention given to it of late, have drawn into the discussion some of the ablest Indian medical experts and administrators; consequently, the Indian Government side of the question has been put forward in the strongest light, and supported by the advocacy of men who have devoted their lives to the solution of problems that affect the well-being of the Indian races. It is, therefore, not with a light heart, nor with a feeling of freedom from responsibility, that I approach the discussion of this serious subject. The issues involved are so momentous, morally, socially, and financially, that it becomes everyone who takes part in this discussion to do so with a becoming sense of the great responsibility he incurs, either in defending or in condemning lightly or without weighty reasons this traffic—a traffic which has such far-reaching consequences by its continuance and expansion on the one hand, or its restriction and total abolition on the other. I trust it is not without some sense of this responsibility that I venture humbly to lay before you some facts on the medical aspects of this important question. In doing so, I will rather suggest than fill in lines of thought and questions that arise in my own mind connected with the consideration of the subject.

It seems to me, after having carefully read all that has recently been printed on the question by the apologists for the

opium traffic, that the medical aspect of the question might be narrowed down to a few simple statements, thus—

It is asserted authoritatively:—I. That Opium is an unconscious safeguard against malarious fevers; hence people living in such malarious parts of India as Assam and Orissa are great consumers of opium. To them, indeed, opium-eating is not “a vice,” but “a necessity.”

II. Opium may be taken regularly, in moderate quantities, without increasing the dose or injuring the individual.

III. “There seems to be no doubt that where food is scanty, a small quantity of opium tends to prevent rapid waste of tissue, and enables a man to sustain life and vigour on such small allowances of food” as an Indian ryot has.

I think, sir, that is a fair summary of what has been advanced in favour of the unrestricted use of opium in our Indian Empire. To compare it with alcohol is not within the points to be considered, and would only lead us off the main issues involved in the discussion; I therefore avoid that side issue in the present paper.

IS OPIUM PROPHYLACTIC AGAINST MALARIA?

The first assertion affirms that the *excessive* consumption of opium in Assam and Orissa is due to the fact that these parts are more malarious than other parts of India, and that it is taken as a prophylactic by the poor ryots.

There are three outstanding facts which prove, to me at least, that the above theory is not the true one. 1st. Many districts in Bengal which are as malarious as Orissa and Assam, do not consume opium in anything like the proportion of these oft-quoted districts. I instance the district of Rajshaye, some parts of which have been depopulated by malaria, yet opium, though known, is not largely consumed in that district as a whole.

2nd. The excessive consumption of opium is *not confined to malarious tracts*, which it would be if the malarial theory was true, either as regards India or China. In both these countries,

people living in parts comparatively free from malaria, are excessive consumers of opium.

3rd. High above the malarial zone, where malaria is endemically unknown, opium is consumed to excess. In such places as Simla—the highest town in the Himalaya range—we find the habit established, and the drug consumed to excess.

It seems clear from these facts, which I can only merely mention, that whatever cause or causes have brought about the excessive consumption of opium in Assam and Orissa it is not malaria alone. We must look a little more closely at these malarious tracts, and find a cause or causes which are equally applicable to other parts of India, very different in climate, race, social habits, and religious restrictions.

THE ORIGIN OF THE HABIT.

If we glance back over the history of opium cultivation we learn that it was formerly cultivated, in these very districts of Assam and Orissa, where it is now so excessively consumed. Dr. Watt tells us, in his exhaustive article on opium in the “Dictionary of Economic Products of India,” that “The East India Company ordered that its cultivation should be restricted to Patna and Benares.” “Doubtless,” adds Dr. Watt, “the dangers to the community and the difficulty of preventing illicit transactions must have forced them to this.” What dangers to the community did the directors dread? We are now told there are no dangers to the community from the cultivation of the poppy! The dangers to the community which they dreaded were real dangers—dangers with which the cultivation of opium have ever been associated in India—the demoralisation of the ryot, and the forming of habits of opium-eating by the community. The directors of the Honourable Company knew, as we now know, that opium cultivation led inevitably and speedily to habits of opium-eating among the community—habits which would prove an increasing burden—an inherited incubus on them and on their offspring, as long as facilities for obtaining the drug were

put within their reach. It is this terrible result of opium cultivation which called forth that noble utterance from the Governor of Bombay when the Imperial Government urged him to permit the growth of the poppy in that Presidency. He said, "On the ground of public morality his Excellency the Governor in Council would strongly deprecate the granting of permission to cultivate the poppy in Scinde, or any other part of the Presidency. It has already been tried in Gujerat, and the result was *widespread corruption and demoralisation*." Now, let us apply this one general law—the corrupting demoralising influence of opium cultivation and manufacture on a community—to the different parts of India, where we find excessive consumption of opium, and we have a simple, natural, and efficient explanation of the prevalence of the habit in these districts more than in others.

HOW THE HABIT SPREADS.

Once the habit is formed in a district, or the taste for opium engrafted in a community, its continuance and the rapidity with which it spreads are determined by two great factors: (1) the facility for obtaining the drug cheaply, and (2) the presence or absence of social and religious restrictions which favour or oppose the onward march of the self-propagating plague. Assam and Orissa, and other centres in India now consuming opium to excess, were, or are now, centres for opium cultivation, and have inherited the taste for opium—a taste which we have so diligently fostered and encouraged by organised facilities for obtaining the drug cheap and without inconvenience. Under these circumstances it is not surprising that the habit of opium eating has gone on increasing with accelerated speed in these districts. But even in these districts, great as the consumption really is, it is not to be compared with the rapidity of infection and widespread nature of the habit in China and Burmah. In these countries social and religious restrictions are more lax, and the moral fibre of these races is weaker than that of the Hindoos and Mohammedans of India; hence there is little moral or social

resistance to the vice, and the habit infects them with a rapidity and ease unknown to us in India.

The people of India are extremely conservative in food and social habits. Whether Hindoos or Mohammedans, they never look upon opium-eating or smoking but with abhorrence. It is to them a *vice*—a vice of which they are always ashamed, and which they invariably try to conceal, unless they have become lost to all sense of decency and shame by the depths of degradation into which they have fallen. I believe this sense of shame hinders the spread of opium in India. It is a social barrier which may be, and is, alas! overcome, but not so speedily as it is in China and Burmah.

THE REASONS FOR BEGINNING TO TAKE OPIUM.

Opium is usually begun at first for one of two reasons: (1) either by contact with vicious persons—disreputable characters—for stimulating certain functions of the body; or (2) medicinally, to allay pain arising from some cause, usually rheumatic. In the case of stimulation of function the opposite result follows; by over-stimulation the function is destroyed. In the second the cure proves worse than the disease, for after the pain for which the drug was taken passes away the awful racking pains and incessant craving for the drug force the poor victim to make almost any sacrifice rather than give up the habit.

A MALARIOUS DISTRICT WITH LITTLE OPIUM CONSUMPTION.

But even if we were not able to lay our finger upon the real original cause of this excessive consumption of opium in Assam and Orissa, we are still face to face with the fact, which I can personally testify to, that in the malarious district of Rajshaye, and other districts of Bengal, opium is as yet but very moderately consumed as compared with Assam and Orissa. I have laboured as a medical missionary in Rajshaye, Bengal, for about fifteen years; I have travelled over its "*Beels*," swamps, and rivers during the most malarious seasons of the year, giving medical and surgical aid to the fever-stricken ryots; I have had

opportunities of mixing with, and knowing the people as no European Government official as such could have, and I solemnly declare that I never heard a native of that or any other district ever hint that opium was taken as a febrifuge, or that those who took opium were made stronger and more able to resist malarial diseases thereby. I have during these years treated from six to ten thousand patients annually, mostly composed of the very poorest, most hard-working and industrious ryots in Bengal, coming to me from villages that had been depopulated by malaria, 80 per cent. of them suffering from malarious fevers or their sequelæ and complications; and I never yet heard any one ask me for a dose of opium for fever. But thousands of times have I been asked for quinine, and the very valuable Government cinchona febrifuge, and even for *tea*, to ward off an attack of fever, or break the spell of a chronic feverish condition.

DEPUTY-SURGEON-GENERAL PARTRIDGE'S TESTIMONY.

I am not alone in this testimony. Deputy Surgeon-General Partridge, speaking from thirty years' experience as a medical officer in the Bombay Presidency, writes: "Then, as regards the statement that it would be cruel to deprive the poor people of opium, because it is a prophylactic against malarious fevers; as far as my experience goes, I do not believe that such an idea ever enters into a native's head. At any rate, I can positively affirm that in my thirty years' service I have never once been asked by any native for opium on account of fever; it is always quinine that they want." Now, here is the calm, decided, straightforward testimony of a Government medical officer, who is not a medical missionary, and whose observation and experience have not been warped or rendered valueless—as those of missionaries are said to be by extreme compassion for the natives. He is, moreover, speaking of the extreme west, as I am speaking of the extreme east of India, and yet our testimonies harmonise. Is there no other explanation of our united testimony than that we are both either "grossly ignorant" or "grossly immoral"?

Is it not just possible that we are only testifying to a very common-place fact, which every native of India knows too well, viz., that opium is never taken in India to ward off or to cure an attack of malarious fever?

CAN OPIUM BE TAKEN WITHOUT INJURY?

II. This brings me to the examination of the second assertion, that "Opium may be taken regularly in moderate quantities without increasing the dose or injuring the individual." To refute this assertion we only require to know how opium acts physiologically on the human organism. It is found (1) that opium lessens all the secretions of the body, except the skin; and (2) that tolerance of the drug is engendered by repeated doses. The first effect interferes with the natural assimilation of food, producing disorders of the stomach and bowels; the second demands that larger and larger doses be taken to produce the desired effect, whatever it may be. This is neither the time nor the place to enter into a purely medical discussion. Suffice it to say that the experience of the opium-eater himself refutes the assertion. Thus, we know that 4 grains is a poisonous dose of opium to one unaccustomed to its use, but there are thousands of opium-eaters in India to-day who can take from 60 to 180 grains daily without any fatal result following. In other words, they can take at once *forty poisonous doses* without being poisoned. They have come to this by gradually increasing the dose as the system becomes accustomed to its use. It seems, therefore, evident that whether opium is injurious or not, the habitual use of it demands that the dose be increased, or the want of it will speedily make the demand so imperious—by racking pain and suffering—that the victim will sacrifice money, food, clothes, comfort, anything, in short, rather than do without it.

The second part of this statement asserts that opium eating is harmless, in moderation, of course; but I have shown that the moderate use of opium must ultimately lead to increased and excessive consumption. This comes to be a question of practical

evidence by medical experts who have had opportunities of observing the effects of opium-eating on individuals. No amount of theoretical surmising, or of comparing it with alcohol, will meet the case.

DR. RUSSELL'S TESTIMONY.

I withhold my own evidence on this point, as it would carry little weight with those who defend the opium traffic; but I bring forward instead the evidence of one of the ablest medical officers at present in the Bengal Medical Service—I mean Dr. Russell, who is now, or was recently, one of the medical officers at Patna. He has made this subject a special study, and is moreover a strenuous supporter of the opium traffic. He has had exceptional opportunities for observing the effects of opium on the prisoners in the jails of Assam and Bengal generally. He informs us that he has made this question “a special topic of discussion in one of his annual medical reports to Government.” He writes:—“The opium-eater enjoys considerable immunity from malarial affections in the early stage—the first few years of indulgence in the habit before the organic visceral changes are set up, and the general shattering of constitution results, which prematurely break down the consumer of opium and render him an easy prey to diseases of every kind. . . . In this district (Gauhati) of Assam the writer has made a series of exact observations on the prevalence of this habit among the large circulating population of the jail. He finds that nearly four-fifths of the men of the plains who enter jail are more or less addicted to this habit, consuming 5 grains to 180 grains of the drug daily. . . . The prevalence of this habit is the curse of our jail populations in Lower Assam. No work can be got out of the long-confirmed opium-eater. He can digest nothing but light food, milk or soups. On ordinary diet he suffers from diarrhoea, tending to rapidly run to dysentery. His system has very slight heat-making power, he is extremely susceptible to any changes of temperature, and cannot stand cold; he is thus especially liable

to both chest and bowel disorders. Again and again he may be nursed by a system of milk diet, gradually on to ordinary food; again and again he recurs to hospital, suffering from diarrhoea, dysentery, or dyspepsia.

“The emaciation of the opium-eater is characteristic and extreme. Eventually, after having been a source of infinite care, after repeated courses of medical and dietary treatment, after having caused large expenditure in sick diet, extras, &c., he perishes, usually of a chest or bowel disorder, or, perhaps, from practical starvation from eventual inability to digest any kind of food, even the lightest and most delicate. On post-mortem examination, all the viscera are usually found wasted and anæmic except the liver, which is commonly large, pale, and very fatty.” This quotation from Dr. Russell's book on “Malaria and Injuries of the Spleen,” refutes completely all that has been written in support of the harmlessness of the opium habit. Even if it were proved that opium did protect from malaria in the early stages of its use—which is far from being the case—yet to advocate its use and continuance in order ultimately “to render him an easy prey to diseases of every kind” is surely a questionable benefit; and especially when “he perishes usually of chest or bowel disorder, or, perhaps, from practical starvation from eventual inability to digest any kind of food.” It seems to me that this testimony—I would say, unintentional but faithful testimony—of Dr. Russell is conclusive on this point. I am quite well aware that Dr. Russell endeavours to explain away the pernicious effects he so graphically describes; but no amount of ingenious explanations can do away with these facts, which are as true to-day as they were twelve years ago, when his book was published.

DOES OPIUM NOT KILL ANY ONE?

In the face of all this we are still told that “opium does not kill anyone!” Well, it depends upon what you mean by that term. Opium kills by the stomach, kills by the bowel, kills by emaciation if you like, but you are not to suppose that, be-

cause you do not find in the records of the Government, jails and hospitals of India, opium-eating as a cause of death, that therefore no deaths are caused by that vice. True, you will find an occasional accidental death by an over-dose of opium, but, after all, we have such deaths occasionally among ourselves! Let me tell you what you will find in the records of these hospitals and dispensaries: you will find opium-eaters who have died from diarrhoea, from dysentery, from acute or chronic gastritis, from anæmia, from starvation, from pneumonia, or chronic phthisis, or any prominent symptom of the thoracic or abdominal viscera. The real cause, however, has been opium, but this is not recorded. I do not say that this is done intentionally to mislead; I merely say that such is the case, because we have no such cause of death in the registration list as death from chronic opium-eating or smoking, so that the medical officer, unless the case is one of acute opium-poisoning, has no other alternative but to record it under the most prominent symptom which is recognised as a cause of death.

How would it look if we should treat every case of death by specific diseases in the same way, and record all these deaths under their most prominent symptom? Then, instead of death from *cholera* we should read *acute diarrhoea*; death from typhoid fever would be *coma*, or *muttering delirium with enteritis*; from *diphtheria* would be from *suffocation* or *blood poisoning*, and death from *smallpox* would be from *pustular rash*, and *scarlet fever* would be *blood poisoning* or *pyrexia*; or, indeed, to eliminate all special causes, we might come at last to describe death from any particular disease as death from *want of breath*, or from *syncope*, failure of the heart's action. You see now the absurdity of this plea, "no deaths from opium-eating!" Yet this is the kind of dust that is thrown into the eyes of non-professional, and even of medical, men to disguise the deadly ravages of the opium habit.

DOES OPIUM SUSTAIN LIFE WHERE FOOD IS SCANTY?

III. Let me, in a few words, refer to the third assertion: "There seems to be no doubt that, where food is scanty, a small

quantity of opium tends to prevent rapid waste of tissue, and enables a man to sustain life and vigour on such small quantities of food" as the Bengal ryot has.

It is difficult to treat this unfortunate and heartless plea for opium-eating with patient seriousness, yet, I suppose, I must do so, and endeavour to answer it fairly and honestly. Let me again remind you of two of the medicinal uses of opium—uses of opium for which the physician and patient alike thank God. The physician prescribes opium (1) for the alleviation of pain, and (2) for producing sleep. He prescribes opium in the first class of cases, because opium paralyses the sensory nerves, giving relief from pain, and, in the second class of cases, to produce sleep, when his patient is from some cause deprived of Nature's great restorer. If opium is taken by a Bengal ryot because he cannot get sufficient rice to allay the pangs of hunger, it must be to deaden the sensory nerves of the stomach, or to produce entire unconsciousness in sleep. It is presumable that he takes it to deaden the pangs of hunger, and he finds it relieves him for the moment. He must, of course, repeat the dose next day, or, if in the morning, he must repeat the dose in the evening. If the man lives and moves and has his being, he must expend energy, which means waste of tissue; and, as opium has not yet been classified as a food, he must be weaker after it than he was before it, and so his opium-eating—even if he could get it when food is not procurable—would not sustain life.

OPIUM COSTS MONEY.

But those who foolishly advance such a plea for opium-eating forget that *opium costs money*, and cannot be got for nothing as a substitute for food. And again, if the poor ryot had money to spend on opium he would surely be able also to buy food. Rice, even in famine times, has never yet been proportionally as dear as opium. The truth is that the poor ryot who has the opium craving, rather than do without it, in times of scarcity will reduce himself and family to a handful of rice daily. The few pice (half-pence) he may have

that should go to buy rice for himself and his little ones, are spent in the opium shop. It deadens his hungry pangs, truly, but does not support life. He dare not share his opium with his children unaccustomed to the drug, lest they die. He thus robs himself and them of their food to indulge in the drug, and becomes callous and indifferent to their cries and sufferings. It seems to me the most heartless mockery to tell a starving Bengal ryot to take opium to deaden the pangs of hunger! If, during the Orissa famine, or any other famine in India, the Government medical officers found opium such a valuable substitute for food, why did they not recommend the Government to *distribute opium freely* (for there is always abundance of it even when food is scarce) without any charge whatever, so that the people might live; or since they believe so much in its sustaining powers, why not recommend the free distribution of the drug in the East End of London to keep alive those who can hardly get one square meal of food a day? The very idea is so preposterous and so cruel that it could only emanate from those who are hardly pressed for arguments to bolster up this nefarious traffic. I feel ashamed, sir, that it should be said that members of our benign and humane profession have invented this theory. It reminds one of the cruel suggestion of Napoleon I. when retreating from Egypt and finding in the hospitals at Jaffa many of his soldiers suffering from the plague; he hesitated to take them with him for fear of contagion, and he was loth to leave them in the hands of the enemy lest they should be tortured to death. He called the chief of his medical staff, and suggested to him that the sick should be poisoned with opium. The physician answered, with the heroism belonging to his profession, that his art taught him how to cure men, not how to kill them. If we are to recommend opium to the starving ryots of Bengal in order that their tissue waste may be arrested, we are doing in small doses and by degrees what Napoleon recommended should be done with one dose! The principle is the same, and the moral guilt is not different but long-drawn out. Opium is a poison, and never can be substituted for food without its poisonous properties telling disastrously upon the human organism.

DR. LAUDER BRUNTON CITED.

In the greatest book on pharmacology in our language, written by a physician and scientist of European fame, Dr. Lauder Brunton, we have the following description of the opium-eater:—"When opium is first taken its action is first to stimulate and afterwards depress; to remove this depression the individual takes another dose—a habit of taking the drug thus becomes established. The nervous system suffers, the mental powers become enfeebled, the moral faculties perverted, and there is inability to distinguish between truth and falsehood. Then the motor powers are attacked, the gait becomes shuffling and uncertain, and digestion is impaired." In the face of such evidence—and we could multiply it a hundredfold—we can but conclude in the words of the *Lancet*, which has all along given out no uncertain sound on this question:—"In the face of such facts as these, we confess that we can see but one way of escape from the difficulties which surround this question—that is the legal restriction of opium to its use for purely medical purposes."

The Chairman invited any gentleman who held views opposite to those expressed in the papers to address the meeting.

Surgeon-General MURRAY said that he attended the meeting at the Society of Arts on the 31st of March when the subject of opium was under discussion, and he derived much information from the speakers who addressed that meeting. It would be seen from the published report of the remarks that he then made, that he believed that opium was very generally used in India and China, and that it gave comfort and gratification without being injurious to health when used in moderate quantities. When used to excess, opium was injurious to body and mind, but the excessive dose was rarely found amongst the intelligent and industrious inhabitants, though not uncommon among the criminal population. People in good circumstances did not use the enormous doses which had been alluded to in the papers which had been read. He had been told by an old friend, a banker, that everybody used opium in Rajpootana and

used it in moderation. A finer race than the Rajpoots in respect both to carriage and to muscular power and appearance was not to be found in India. The method of using opium in India was to eat it, and not to smoke it. The effect of the excess among the criminal population was shown by the high rate of mortality amongst the prisoners, compared with that among the Sepoys. He attributed this mortality to the sudden cessation of the use of opium when the men were put into prison. He had had considerable experience among the criminal population, from having had under his medical charge for many years the jail at Agra, which contained upwards of 3,500 prisoners. He had endeavoured to cure the opium eaters when they were in jail by giving them pills containing small quantities of opium and gradually reducing the dose until it was discontinued altogether. This treatment had had a beneficial effect upon the health of the prisoners. It was curious to observe how seldom travellers, or even residents, noticed the use of opium by the natives of India. He was not aware of having seen a single case in the streets or in public of a man suffering from the excessive use of opium.

Dr. MORISON, interposing, said that a man who was under the influence of opium went to sleep, and could not walk about the streets.

Surgeon-General MURRAY, continuing, said that opium, as generally taken, soothed pain and uneasiness, and promoted digestion. It was of great value in many painful and chronic diseases. He had never heard of the use of opium as a remedy for malarial fevers or ague. In those cases quinine was the sheet-anchor. Arsenic was also used, but in many cases, when the system had become habituated to the use of quinine, he had added morphia with the greatest advantage. The addition seemed to revive the action of the quinine. He had prepared a tabular statement showing the opinions expressed by the gentlemen who attended the meeting at the Society of Arts as to the action of opium on the body and mind. There was a wonderful unanimity as to the effect of the general use of

opium in India and China. They agreed that it contributed much to the comfort and happiness of life when used in moderation. The chief difference of opinion between these observers and the anti-opium party was as to the use of small doses invariably leading to the increase of the dose until excess was reached. This, in ordinary cases, was not the result. It was the abuse and not the use of the article that was injurious. The result of the observations which he had made during his lifetime, the years of which were not a few, being over four-score in number, was that the human race required some species of excitement or indulgence. ("Oh, oh.") In cold climates the tendency was towards the consumption of alcohol. That substance, when taken in excess, was as injurious as opium taken in excess. In tropical climates the practice was to use opium, or ganja, or other drugs, which were never used in this country. At the present time opium was the most valuable agricultural product of the richest soil in tropical countries. It was reported that opium was produced in abundance at the present time in China. In fact, it was said that the production in China was eight times as large as that in India. The native production in China was protected by the very high import duty imposed by the Chinese Government. Some of the anti-opium committee appeared to expect that stopping the supplies of opium from India would lead the Chinese Government to give up the cultivation in China. In his opinion, however, the stoppage of the supply of Indian opium would stimulate an increased production in China. If that was the result India would have been ruined for the benefit of China.

DR. RICHARDSON'S ADDRESS.

The CHAIRMAN said: I very much regret that I am imperatively bound to leave this meeting in about ten minutes. I have come here to gather information, thinking that everybody should hear this question fully discussed. I have come with great pleasure, and the information which I have gained may be of use to me in the new career that seems possibly opening

before me. But whether that be so or not, I have learned a great many valuable facts which I shall keep in mind. The course of the debate has led us to five points. There are some who say that opium may be used in moderation and without danger. There are others who say that it cannot be used in moderation without danger. There are some who believe that opium is a prophylactic. There are others who, on startling evidence, declare that no prophylactic action belongs to it. All agree that if there is anything like an excess in the taking of opium, whether by smoking it, or injecting it under the skin, or taking it by the mouth, there is danger. Now, we may go away with those five views firmly in our minds.

SOME PERSONAL OBSERVATIONS.

Well, you ask me what I say on these points from the physiological side. I have no such knowledge of the effects of opium as that which has been presented to us in the two able papers to which we have listened. My knowledge of it has been confined to London. Some years ago I took a great interest in the opium dens of London, and I frequently visited them for the purpose of ascertaining whether there was a distinctive difference, with regard to the symptoms produced, by smoking opium in those dens, as compared with the taking of opium in the solid state, or the injection of it as morphia. I gained a little information with regard to the smoking of opium there. I was a witness to Lascars lying under the influence produced by opium-smoking in one very well-known den, that of Johnny Chang, and I have had experience for many years with regard to persons who take opium by the mouth or subject themselves to the injection of morphia. I read a paper on this subject fifteen or sixteen years ago, and the result was to bring people from all parts of the world to consult me as to the possibility of getting rid of an injurious habit. These people who have come to me have been the very opposite to those who have been spoken of by Surgeon-General Murray. All who have come to me have been rich enough to come to a physician

in London, and you know that, generally speaking, that does not mean poverty. Therefore, I can speak of the well-to-do with regard to that side of the taking of morphia or the taking of opium.

DIFFERENCES BETWEEN SMOKING AND INJECTION OR SWALLOWING.

From these experiences I gather that there is a distinctive difference betwixt smoking opium and taking it by hypodermic injection, or swallowing it. There are distinctions, of a very remarkable kind. I do not mean to say that smoking opium is less injurious than injecting it, but the symptoms are somewhat different. The persons who take morphia by injection, or who swallow opium do not immediately go to sleep as those who smoke it do. What I observed always in the opium-smoker was, that he had a tendency to go to sleep; and, in fact, in the opium dens, where the men lay upon sackings, stretched across as a bed, there would be half-a-dozen lying at one time smoking themselves to sleep, and they would sleep until it was time for them to be awakened that they might get back to their duties. They slept all the time. I was told that they were very dangerous under those circumstances, and that they might rise up, and be mischievous to anyone who might perform any experiment upon them, however simple it might be. I was anxious to ascertain whether the temperature of the body fell under these circumstances of deep sleep, and I took down a thermometer to get the temperature of the body; but I was warned that it would be such a dangerous experiment, that the responsibility of pushing the inquiry so far must not be accepted. I noticed one fact so well described in one of the papers, that there was in the appearance of these men the peculiarity that the secretions were checked. The skin in many of them was like leather, dry, hard, and shrivelled, and I understood that the internal secretions were much suppressed. I have never seen these facts so strikingly in opium-eaters, or in those who inject morphia. Those who inject do not go to sleep directly. In fact, they go about their duties in the

most remarkable manner for a time after they have been injected. I have known a man in a very important office retire for a period from a public meeting, go into a quiet corner, inject himself with morphia there, and return to his public work. And I have seen a member of my own profession, while denouncing heartily the habit of injecting morphia, deliberately take a bottle out of his pocket and inject himself in my very face, as if he had forgotten all about the abuse of the drug, and as if injection had become an automatic act which he must perform. These differences are marked. There is, then, a physiological difference between the smoking of opium and the taking of it by injection or swallowing. But of this I am quite sure, that in neither is there any benefit. I am not sufficiently conversant with the smoking habit to say that it is better or worse than the other, but I am certain with regard to the morphia habit, and with regard to the taking of opium by the mouth, that whether the drug be taken in the most moderate form, or in a larger quantity,

THE DIFFERENCE OF MISCHIEF IS ONLY ONE OF DEGREE.

I never saw one of those who have come to me that was not injured by the habit. I have known some of them who have taken only a very small quantity—perhaps from three to grains of opium a day. I have known one man who has run the dose of morphia up to ninety-six grains in the day—ninety-six grains of *morphia*. This one was near to death's door when he came to me. Now he has come down to his four grains of morphia a-day, and if I insisted that it should be stopped altogether I should not get what I wanted. But neither the moderate nor the immoderate habitue is the better for what they take. There is uncertainty about their action; there is uncertainty about their word; and there is a danger at any moment of both of them going to excess—of the one going back to his large dose, and of the other increasing his dose to the extent of doing real mischief.

We should bear in mind in studying the effects of this

drug upon the human body, that it produces a desire for itself. Like alcohol, chloroform, or ether, opium and morphia produce a desire for themselves, and when once they begin to produce desire, they produce, in degree, a new constitution, with the tendency to cry for "More," until excess becomes danger. There cannot be two opinions about this matter in the minds of persons who observe correctly.

But, you ask, is there any good at all under any circumstances in the habitual use of opium by any mode? I never could see that there was the slightest good—never, except medicinally. When opiates are prescribed for a few days medicinally, there may be great good; but why a person should become habituated to them, in however small a quantity, I never could see reason. What does opium do under such conditions? Does it increase the muscular power? No. Does it maintain the natural temperature of the body? No. Does it improve the appetite? No. Does it assist the digestion of food? No. Does it relieve the mind from any peculiar weight that may be upon it? No. Does it whip men up to become more active and useful? No. You ask all round, step by step, what it does. You find, after all, that it does nothing but create an absurd habit, introduced into the world for no mortal purpose or use whatever, but which, continued until a new constitution declares it necessary, does infinite evil; and that seems to me to be a summary of the whole question. (Applause.)

THE MORAL ASPECT.

There is one point more. . You, ladies and gentlemen, have met, I believe, not only for the physiological consideration of this important subject, but for the consideration of the moral and social and political side of it. Well, if it be true, as Sir George Birdwood, whom I know and much esteem, has said, "That no more injury results from smoking opium than from smoking the bark of trees, or anything else that will give a smoke on burning," I answer to that, "Never mind; if smoking a sponge, or bark, or puff ball, or anything else, would produce

the effects which we know of from opium, I would equally cry 'Stop!'" It does not signify what is smoked, so long as mischief comes from the smoking. It is the mischief with which we are dealing, and not the agent of it.

THE FINANCIAL ASPECT.

In conclusion, I have come to this mind with regard both to alcohol and to opium, that it is a disgrace and a shame to a civilised nation that it should, for the mere purpose of taking money, encourage these bad habits. Taxation so derived is of the worst possible description, socially, morally, and physically. It is like taking the blood of the nation for the mere matter of obtaining the means. What for? Not ultimately for the good of the nation—that is impossible, because it is impossible that good can come out of evil; but it is for the encouragement of a delusion altogether, which misleads in all directions; misleads with regard to wealth because it takes away health; misleads because instead of making us a great and powerful and long-continuing people on the earth, it tends of necessity to take us back towards lower animal forms of life, to destroy our character as a nation, to destroy our better natures and the goodness that is in them, and to sustain a fundamental wrong opposed alike by science and morality. (Cheers.)

Dr. RICHARDSON then withdrew, and left Mr. Donald Matheson in the occupation of the chair.

POSITIVE AND NEGATIVE EVIDENCE.

Dr. EDWARD HORTON said that they had heard the statements of gentlemen who had seen the evil effects of opium in India and in China, and they had had the statement of a gentleman who said that he had not seen the evil effects. He would ask which class of evidence was most to the point.

OPIUM LOWERS VITALITY.

There was another point which, as a medical man, he was bound to regard, and that was, that the use of opium, as every-

body who had studied medicine knew, lowered the vitality of the system. It often happened, when deaths were registered, that they were attributed to the secondary causes, and that the real causes of them, or the agencies which had primarily led to them, were not recorded. This was a "cooking" of the accounts. Opium might be useful medicinally, but the taking of it could not be useful as a permanent habit. Physicians would agree that if it was proved that the habitual use of the drug lowered vitality everything was proved. A man whose vitality was lowered would fly to stimulants. He was "below par," and therefore unfit for his work. He became unable to do what he used to do, and hence he was a less useful member of society than he was formerly, and he was exposed to all sorts of disease, which would not attack him if he was in sound health. Causes which reduced the vitality of the people who were subjected to them produced many deaths which, when registered, were not assigned to the original cause. The moral question had also to be considered. Opium was degrading in the highest degree to the moral nature of those who used it, and it was a disgrace for the British Government to raise a revenue from it. (Applause.)

Brigade-Surgeon PRINGLE, M.D., said that a short time ago he found a remarkable document which would illustrate what opium-eating in Assam really meant, and what was its value to those who were hard at work there upon the tea plantations. We had no idea in this country what a terrible hindrance the opium-eating habits of Assam were to a good day's work.

THE REPORT OF A TEA GARDEN IN ASSAM,

under the date of May, 1892, stated with regard to the labourers that they were "not nearly so fine a force as used to be on the estate, chiefly owing to bad classes of coolies being sent up, and to the terrible practice of opium-eating among a large percentage." The number of men on the estate was 607, of whom 170, or about 28 per cent., were opium-eaters. The number of women was 561; and 32, equal to 6 per cent., were opium-eaters. The number of

working children was 192. Of these 11, equal to 5 per cent., were opium-eaters. The total number of labourers was 1,360, and the average percentage of opium-eaters was about 14. The report to which he had referred stated: "The general health of the coolies under Dr. ———'s able treatment is good, but it is much to be regretted that so many become opium-eaters, a practice which the manager is trying his utmost to lessen, but which is a difficult matter." Under the head of "Food Supply," there was also the following regarding rice as an article of diet: "It appears that heretofore rice was given out rather indiscriminately, opium-eaters, for instance, selling it to obtain the drug." He had been informed by a gentleman connected with the trade that in Assam the labourers, instead of getting their full money, received a certain equivalent of opium, and this they took home. The amount which they received was 1 tola, value 4 annas. A tola was equal to 180 grains. The next morning the workers took some time to shake themselves together and get back to their work. The best coolies were those who came from a part of the country where the opium was not grown, and the worst class came from the depôts of Calcutta. A great many of those that arrived had to be sent back as utterly useless. A good deal had been said about what were called the splendid palanquin bearers. There were, however, two sides to that question. Up to a certain point a palanquin bearer could carry an immense load, and do a great deal of work, as long as he was able to keep up a good generous diet, and had what was generally absolutely overlooked in discussions on this question, namely, a trace of respectability and repute. A traveller would say, "I never saw a palanquin bearer the worse for opium." That would be probably true, because the opium-eater would at first try to avoid the effects being seen, but he would gradually drift into a worse and worse condition, and probably end in that wonderful receptacle of everything called Calcutta. It was from Calcutta that those persons who went out to work in the tea-gardens in Assam were drafted. If they were examined and their cases were inquired into, it

would be found out what had become of the palanquin bearers. The opium-eaters would not be found in the streets as long as there was a trace of shame about them.

INDIANS DO NOT LIKE TO CONFESS THEMSELVES OPIUM-EATERS.

Referring to the shame which the Rajpoots had in confessing the habit of opium-eating, Surgeon-Lieutenant-Colonel J. H. Hendley, in a letter to the *Medical Journal* of April 30, 1892, said:—"There is nothing remarkable in this, as no Rajpoot would care to acknowledge, especially to a European, that he was not quite so strong as he used to be in his early youth, and that he was compelled to take a little wine or opium for his stomach's sake."

HOW THE HABIT WAS EXTENDED IN ORISSA.

In Orissa, opium-smoking and opium-eating had increased, as he (Brigade-Surgeon Pringle) was greatly grieved to hear. The statement of Dr. Richards, contained in an official document, showed that this habit had greatly increased since the famine. No person, however, had the slightest need to take opium on account of the scarcity of food. When he (the speaker) was in Orissa, a hard-working man was able to bring up a large family on two rupees a month. At that time rice was largely exported. Then the famine came, and some of the inhabitants took opium for the purpose of getting over their hunger and their craving for food. The result had been that the opium habit had gripped them, and the country was now under its heel. As one who knew Orissa well, he could state that from about 1854 to 1862 there was no opium-eating there at all, or if it was practised at all it was not visible even to one who went about the villages as he did.

DR. WATT'S LETTER.

The SECRETARY read a portion of the letter which had been received from Dr. Watt, the author of an article on opium,

recently published by the Indian Government in the "Dictionary of Indian Products." Dr. Watt said :

I should wish it, however, to be observed that the opium chapter of my dictionary should be read as a review of all the material then at my disposal, and that, too, without any regard to controversial matters or personal opinions. I have there expressly stated that the moral aspects of the question were quite beyond the scope of the task I had before me in writing that article. I venture to affirm that "opium" differs in no respect from "indigo," "cotton," and other such special articles. Facts and figures have been displayed, as if in ignorance of the effect of these on the theories before the public as to many features of the opium question. I am not therefore surprised that Professor Legge (*Friend of China*, Vol. XIII., No. 2, p. 59) should have come to the opinion that I had "failed to clear the British Government from the charge of having forced the opium trade on China," &c., &c. I had no such task before me any more than that Professor Legge would wish us to suppose that Christianity could not afford so beautiful an expression as the Confucian "cloud" with which he concludes his letter. In writing the dictionary my instructions were and are to review honestly all available material on any and every subject regardless of the effect on Government or on party interests. To produce a work that would be a faithful and trustworthy record of information up to date, and to leave others to theorise. If I have failed to carry out these instructions in the opium or other chapters of my work, the fault is mine. Personally, I hold opinions adverse to those of your society, but, except at the meeting of the Society of Arts (so far as I am aware), I have not given, nor sought to give, any publicity to my peculiar views. I do not, however, hesitate in saying that excessive use of opium—its abuse—is most pernicious, just as I hold that the abuse of alcohol is destructive of all that is good and noble in man. While I thus view your society as actuated by a Christian desire in seeking the total suppression of the opium traffic, my studies of the question induce me to hold that you are seriously in error in thinking total suppression either possible or the most satisfactory way to deal with the question.

A vote of thanks was unanimously accorded to Dr. Richardson for having presided at the meeting.

The proceedings then terminated.

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