An occasional paper of the British Anti-Tobacco Society / by Wm. Hardwicke ... embracing the recent researches of M. Jolly on tobacco smoking in France.

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# SMOKE NOT. No. 23.

"SHUN SMOKING AS YOU WOULD SHUN SELF-DESTRUCTION." LANCET, 1857.

## AN OCCASIONAL PAPER

OF THE

## BRITISH ANTI-TOBACCO SOCIETY,

BY

# WM. HARDWICKE, M.D., &c.,

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ON TOBACCO SMOKING IN FRANCE.

Stamped Threepence, sent to any address.

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## ADDRESS.

"SHUN SMOKING AS YOU WOULD SHUN SELF-DESTRUCTION."-Lancet, 1857.

During the past year the evils of excessive smoking were ably brought forward in France, by M. Jolly, in a series of papers in the Gazette Medicale, and the subject occupied much of the attention of the most distinguished members of the Academy of Medicine. The manifest mischief arising from the practice has, on all sides, become recognized in France as a national evil, but it is a subject of not less interest to the English nation, that inveterate smokers of every age and condition should be occasionally reminded of the perils of tobacco poisoning. It has ever been an unthankful duty to attack a prevailing vice; science must nevertheless, occasionally raise her voice on the side of truth, and attempt to give authority to those who are endeavouring to oppose the progress of an evil which most eminent men have thought worthy of serious consideration. Happily, there are in this country and in America intelligent persons, a large body of conscientious men who are striving to suppress this increasing vice. It is therefore proposed on this occasion, to bring before the British Anti-Tobacco Society, some of the latest facts in reference to the much discussed "Tobacco Question." With some persons smoking seems to be as essential to their very existence as eating, drinking, and sleeping; and, by a strange infatuation, it is supposed to be innocuous, because they do not believe that the narcotic influence employed in such small doses, and at constant and regular intervals, and often without any immediate palpable effects will be ultimately injurious to them.

Before entering into the hygienic and medical studies concerning tobacco, it will not be amiss to give a few historical details. It appears that a Spanish missionary, Fra Romano Pone, compagnon de voyage of Columbus, sent Charles V. some tobacco seeds. He had observed that among the priests of the god Keiwasa, the effects of intoxication

were produced by burning the leaves of this poisonous plant.

The culture of tobacco in Europe first began in 1518, but the Spanish government previously cultivated it largely in the Island of Cuba. The Portuguese imitated their example in the Brazils. Cardinal St. Croix imported tobacco into Italy, where it was known then as the herbe of St. Croix. In 1560, Jean Nicot, Ambassador of France at Lisbon, introduced tobacco in the form of snuff, to Catherine de Medicis, as a remedy for headache. Snuff-taking, like every other absurd and eccentric fashion, made its way very rapidly into all classes of society. It even became an epidemic. In the reigns of Louis XIII. and XIV., it was etiquette to be presented at court with a little rasp in the hand, the shirt-frills powdered with tobacco, the nose stuffed with this black powder, and the garments perfumed by its odour. Rasps were superseded by snuff-boxes, as soon as means were discovered of completely pulverising

tobacco. The use of snuff-boxes contributed largely to propagate the practice of snuff-taking. Fagon, one of the first physicians under Louis XIV., endeavoured to expose the abuse of this practice, and issued a thesis against tobacco. Pope Urban VIII. threatened to excommunicate all those who took snuff in churches. Mahomet IV. prohibited tobacco, under the penalty of death. A grand duke of Russia ordered snuff-takers to be hung; and a king of Persia ordered their noses to be cut off. But neither religion nor the persecutions under arbitrary power, nor pecuniary fines which were imposed under the reigns of James I. of England, and Christian IV. of Denmark, were sufficient to check the practice of snuff-taking, It was regarded as a privilege of the rich. Snuff-taking, although not exempt from danger, did not interfere with the general health to the same extent as the cigar and pipe. The pipe, which had already come into use throughout Germany, was introduced into France by Jean Bart. Louis XIV. astonished the ladies of his court, one day, by privately attempting to smoke. The Marine Service introduced smoking to the Army, and for many years the commissariat engaged to provide tobacco and distribute it with the usual articles of food. It was soon discovered that tobacco lessened the appetite, retarded the digestion, and in some respect diminished the danger of famine. It tended to support the dullness of the bivouac, and diverted the attention of the soldiers.

Nothing gives a better idea of the frightful development to which the consumption of tobacco has arrived in Europe than the inspection of the figures which represent the annual revenue produced by this article.

During last year, a circular was sent to Her Majesty's Ministers abroad, for them to obtain information on the growth of tobacco, if free or prohibited, and what duties and regulations are adopted. The

following is an abstract :--

"In Belgium the sum produced by tax on tobacco and cigars amounted to 207,976 francs. There are 23,189 retailers of tobacco paying licence of 824,896 francs each per annum, 2,748 being retailers of cigars paving from 24 to 96 francs per annum extra duty. The importation of foreign tobacco in 1863 provided a sum of 693,313 francs at 7 per cent., ad valorem duty on the article. The quantity of land under cultivation in 1864 was 666 acres. In Hanover there is a tax levied upon land under tobacco cultivation varying from 3 to 6 groschens per one-thirteenth part of the morgen or acre, less than that may be cultivated free. In Prussia the cultivation of tobacco is free, formerly the duty was one thaler upon every cwt. of dried leaves, but since 1828, the tax is levied upon every one-thirtieth of an acre according to its quality in four classes, less than six-thirtieths of an acre are free of duty. In 1863, 23,445 morgens or acres were under tobacco cultivation, 1397 being free of duty, 113,450 thalers being the amount of duty from taxed ground. The soil yields from 6 to 8 centners per annum, value of the dried leaves from 3 to 7 thalers according to quality. The total produce in 1861 to 1864 is from 133,831 to 181,825 centners per annum. In the kingdom of Wurtemburg the cultivation of tobacco has no restrictions. In 1864, 732 Magdeburg acres were under cultivation, yielding 8,197 cwt., 100 lbs., of dried leaves, worth £9 15s. the cwt. In the Duchy of Baden tobacco cultivation is free. In 1863, 258,049 centners, value 3,285,823 florins, is the return given. In Bayaria it

appears 15,080 acres in 1863, and 16,114 acres in 1864 were under tobacco cultivation, yielding 139,718 and 125,293 cwts. The price fluctuated often from 9 to 16 florins 30 kreutzers in 1863, and from 5 florins to 20 per cwt. in 1854. In Sweeden the growth of tobacco is free, the quantity is not considerable, and is of an inferior quality compared with that imported from other countries. In Holland the cultivation of tobacco is permitted without any condition of taxation.

In France at the end of the last century, tobacco brought to the treasury between 20 and 30 million francs, of which, two-thirds were derived from snuff, and one-third only from tobacco for smoking. Since 1810—the year when the monopoly was established by the government—the consumption rapidly increased. During the last 50 years, the following amounts were received by the State. Taken in periods of 10 years, with the mean annual sum, shews the following figures:—

1816 to 1826 ...  $63\frac{1}{3}$  million francs. 1826 to 1836 ...  $68\frac{1}{2}$  ,, 1836 to 1846 ... 96 ,, 1846 to 1856 ... 128 ,,

The receipts for 1861 amounted to 215 millions, and in 1864, to 232 millions. From 1811 to 1860, the total sum was not less than 7 millards, an amount larger than would be necessary to construct a new network of railways in France. The produce of the tax on tobacco, formed a 5th part of the indirect revenue in France. The cultivation is authorized only in certain departments and under certain conditions. In the month of October every year, the minister of finances determines for the following year the number of hectares that are to be prepared for the imperial manufactories, and the maximum quantity of tobacco which can be furnished to these manufacturies, also the payment required for the tax. The importation of tobacco in the form of dried leaves is permitted only for the imperial factories; about one-fifth of the total consumption is allowed to be imported from the colonies, the duties levied being about equal to the benefit derived from the monopoly of tobacco.

What especially is peculiar in the tax on tobacco, and which causes the government to watch, maintain, and augment it as much as possible, is the fact, that in spite of the inconveniences and dangers recognised from this useless and mischievous drug, its course is always rapidly and surely ascending. Nothing stops it: neither wars, nor revolutions, nor famine, nor commercial crises. What also is very curious to observe is, that from 1832, the consumption of snuff has remained almost stationary, and the increase is almost always on smoking-tobacco. In 1842, one-third of the receipts were from snuff; in

1863, one-sixteenth only.

It may be stated, also, that in the Provinces where the individual consumption is largest, smoking-tobacco rises much above snuff-tobacco. The contrary takes place in those Provinces where the consumption is least. In 1860, the consumption of smoking tobacco in the departments in the north of France is 1,795 grammes per head, 1,366 grammes in the Pas de Calais, 1,178 grammes in the Hant Rhin; in the south of France it is 102 grammes per head, in La Charente 103 grammes, 144 grammes in La Lozere. In taking the average, M. Jolly gives an annual con-

sumption of 8 kilogrammes for each smoker. This is perhaps exaggerated—in fact, the statistics give about 800 grammes per head of population. Admitting that, in 38 millions of inhabitants, there are 10 millions of smokers, it would be an annual average of 3 kilogrammes a head per smoker. The cost must be enormous, when we remember that it represents an expense of 30 to 36 francs per annum—that is to say, two-thirds the individual expenditure of bread. How often, however, does it happen that a workman, reduced to choose between the purchase of bread and purchase of tobacco, decides for the latter. Many smokers exceed, in a large proportion, the average above mentioned.

In Spain the cultivation of tobacco is permitted with absolute liberty. The average produce from 1860 to 1864 is calculated at 260,000 loads of 200 lbs. Spanish per annum at 40 pesos, gives a value of 10,400,000 pesos. In the kingdom of Portugal the growth of tobacco is strictly prohibited by royal decree of 1864, but it is permitted legally in the Island of Madeira and in the Azores. The tax levied being the same, as those levied upon any other kind of produce in accordance with the

Portuguese fiscal system.

In Great Britain, too, the use of tobacco has been gradually increasing. In 1851, 27,915,024 lb. were used for home consumption; in 1861, 34,828,441 lb.; in 1864, 37,951,928 lb.; the increase going on at the rate of 750,000 lb. per annum. The revenue in 1865 was £6,080,184.

Let us test this by population returns. The number of males in Great Britain, aged fifteen and upwards, is about 8,000,000, according to the census of 1861. Allowing about 50 per cent., or one-half of the number, to represent the smokers of the country, the annual consumption will be 9 lb. each person. This amount, large as it seems to be, agrees

with the experience of most smokers.

Two ounces a week, or above 6 lb. per annum, is the allowance of a moderate smoker; but for weeks together working men are known to smoke daily \( \frac{1}{2} \) an oz., as most retail tobacconists can prove, while there are instances known of men apparently in health who smoke as much as \( \frac{1}{2} \) lb. a week for many successive years. The increase is noteworthy. About ten years ago it was stated that the consumption of tobacco in England was 19 oz. per head; in Ireland, 12 oz.; in France, 18 oz.; in Denmark, 70 oz.; and in Belgium. 73 oz. In America the annual consumption is immense; and in New South Wales the average consumption is said to be 14 lb. a man. This state of things cannot be continued without alarm to those who are acquainted with the elementary principles of physiology, on the integrity of which health depends.

The poisonous nature of tobacco is placed beyond a doubt, when we know from researches of chemists that the leaves of the plant contain 2 to 7 per cent. of one of the most powerful vegetable poisons, and that it has been used to accomplish atrocious criminal projects. Count Bocarmé, for instance, murdered his brother-in-law, a few years ago; and the poet Santeul was killed at a convival feast by one of the guests putting tobacco in some Spanish wine—while the company were laughing at this waggish

trick, the poor poet was dying.

The active principles of tobacco are mainly nicotianin-or the oil of

<sup>\*</sup> The gramme is about 15½ English grains, and the the kilogramme a little more than 21bs. avoirdupoise.

tobacco, and an alkaloid called nicotin—both these substances are poisonous—besides which carbonate of ammonia and other gases are given off in the combustion of tobacco, and can be detected in the smoke. One drop of the oil of nicotine will kill a cat. The Hottentots kill snakes with it—a simple infusion taken inwardly causes death. These principles vary in different kinds of tobacco. The Virginia and the Kentucky are the strongest; the tobaccos of Turkey and the Levant contain very little nicotine. The Havanna and Brazils cigars contain less than 2 per cent. The ashes forming the residue of combustion contain phosphates, sulphates, carbonates, chlorides of sodium, calcium,

and magnesium, with small traces of silica and alumina.

There are three methods of using tobacco—smoking, chewing, and snuffing. The Turkish and Dutch pipes have the advantage of depriving the smoke of some of its empyreumatic oil, and rendering it less injurious The cigars and cigarettes act frequently very injuriously, the juice of tobacco producing by swallowing, local irritation of the gums and lips; the teeth become yellow, and the enamel damaged. According to M. Leroy, the abuse of tobacco engenders cancer of the lips, which has become more frequent of late years. The statistics of cancer of the lip figure rarely in females while they stand very high in males. He says cancer of the tongue, as well as cancer of the lips, deserves the name of "smoker's cancer," its cause being nearly always the abuse of the pipe, especially the short pipe, from which the smoke enters the mouth warm and acrid. I have seen well marked cases.

While, however, only rare instances occur of fatal or organic mischief from tobacco, the general disturbance of health arising from excess of tobacco smoking is not uncommon. The normal or healthy condition of every vital function is perverted, feeble and irregular actions of the heart ensue, dyspepsia with stomach derangements—indicated by thirst, impaired appetite, and craving for stimulants—mal-nutrition and bad assimilation of food are shown by the pale and sallow countenance and spare habit, often accompanied by muscular debility with tremors: whilst the shattered state of the nervous system is indicated by loss of

memory, feeble volition, and dull perception.

It appears established by medical statistics that diseases of the brain and nervous system are increasing in a frightful degree, indeed, the coincidence is somewhat striking that mental diseases, softening of the brain, and spinal marrow, general and progressive paralysis, also certain cancerous diseases of the lips and tongue run a parallel course of increase with the state revenue derived from the tax on tobacco in France. The progressive movement of the population is arrested in proportion as the figures increase which represent the consumption of tobacco. The mischievous effects of tobacco have become particularly manifest in France since the habit of smoking has predominated over that of snuff-taking, for although snuff-taking is not exempt from danger it is far from attacking the general health as the pipe and cigar. M. Jolly avers that the day when France as a nation commenced to smoke, she began to poison herself.

There are many persons who experience the effects of tobacco on entering a room closely impregnated with tobacco smoke, they complain of headache, nausea, fainting, sickness, and purging. There are conflict-

ing opinions, however, as to the influence of the tobacco manufactories upon the health of the workmen; it is alleged by some physicians that large numbers of them are obliged to suspend work from time to time on account of headache, nausea, and dyspepsea, that the atmosphere of tobacco fermentation produces these evils, leading to emaciation, nervous symptoms, the appearance of suffering, and of premature old age; on the contrary, M. Du Chatelet asserts that the health of the workmen, 4000 in number, engaged in the tobacco manufactories of France were not more unhealthy than other artizans. But M. Jolly says that workpeople in the atmosphere of tobacco manufactories have the physical appearances of premature old age, they have a greyish tint of countenance, suffer much from headache, troubles of digestion, are emaciated, and have nervous tremors, &c. According to M. Jolly, M. Bonafont, M. Sichel, Mr. Hutchinson, and other English physicians, and according to the experimental researches of M. Claude, Bernard, and those of M. le docteur Decaisne, tobacco shows its effects principally upon the nervous centres and especially upon the muscular fibre, dullness of the senses, sluggishness of perception, enfeeblement of memory, a want of precision in muscular movement, trembling of the limbs, in a wordeverything which denotes a morbid state of the nervous system. organs of hearing and sight are known to suffer from the use of tobacco according to the testimony of Bonafont, Sichel, and others. The late Dr. Hiffelsheim has related in the Union Medicale a case of delirium tremens from the use of the pipe, and M. Michea has observed several examples of locomotive paralysis in incorrigible smokers. Two Belgian physicians—M. M Gaislain and Hagon—have likewise pointed out the extraordinary influence of tobacco and spirits upon the development of nervous diseases.

M. Bergeron has given statistics, showing that cancer of the stomach is more frequent in males then in females, the cause of which he attributes to the bad effects of chewing. The celebrated philosopher Mallebranchi died from this disease, after having contracted the habit of chewing.

Much more might be said that ought to deter our rising population in particular, from habituating themselves to a drug of such a dangerous tendency. For whatever purpose tobacco may be resorted to, there are other agents which may be employed for similar purposes, which may be abandoned without inconvenience, but tobacco changes the condition of the nervous system, and affects also as a consequence the action of the heart and the general circulation. Reasons multiply on reflection for guarding against the ensnaring but fashionable employment of the pipe or cigar.

Narcotics, it is well known, stand out distinctly as substances capable of checking or retarding vital action, whether natural or excessive; pain may be relieved by them; but they are lowering or devitalizing in their operation, and they possess in common, the property of diminishing the rate of oxidation of the blood; they arrest the transformation or waste of living tissue; the blood is poisoned, the function of nerves paralysed, and the voluntary and involuntary muscular action is deranged. The nerves are conductors and indicators of those

changes which take place either from the contraction of voluntary or involuntary muscles, or wherever living tissues are transformed or destroyed. These vital processes constitute life and health; and narcotics are evidently endowed with a property of arresting or inter-

rupting them.

It is evident that tobacco must be charged with the very serious development of mental diseases, and more especially that form of mental alienation which is designated under the name of progressive and general paralysis. After certain statistics of Dr. Rubio the relative number of insane persons is much more considerable in the northern provinces of France where the consumption of spirits and tobacco is greater, than in the southern provinces, where people are more sober and smoke less. According to M. Moreau a case of general paralysis is rarely met with in Asia Minor where there is no abuse from alcohol, and where they smoke the tobacco almost exempt from nicotine. On the contrary mental diseases increase in a frightful degree in Europe in proportion as the revenue from tobacco increases. We have already seen that from 1830 to 1862, the revenue from the tax on tobacco in France rose from 30 to 200 millions, while during the same period the number of instances increased in France from 8,000 to 40,000. These figures, moreover, do not include private lunatics, or probably the number would reach 60,000. If we take into account other maladies affecting the nervous centres which have for their cause a common origin, but which do not figure in statistics, M. Jolly thinks we might fairly estimate the number of individuals at 100,000, who are suffering from the toxical effects of tobacco.

The same writer has endeavoured to substantiate his opinion upon the action of tobacco by researches into the public and private asylums in which he has convinced himself that the muscular or narcotic paralysis so predominates as to constitute an excess above the normal average of lunatics in men, while other forms of mental disease show but feeble variations in numbers. Information acquired in the asylums fully proved that amongst the antecedents of the disease are the effects of the abuse of tobacco. In the female lunatic asylums, on the contrary, the usual forms of madness only are recognized, and general paralysis is an exception to the rule. These are not simple coincidences for as they multiply they amount to an actual demonstration. We see in these examples that attacks of general paralysis occur chiefly in individuals who use tobacco more or less saturated with nicotine. Soldiers and sailors especially, who surpass the rest of the population in excesses with the pipe and cigar, figure always in the first line in the sum of paralytic insane; on the contrary, females are nearly exempt from this malady. Populations that do not smoke, or that smoke a tobacco without nicotine, or inert substances, or those which make use of hop, tea, cocoa, &c., enjoy the same immunity. Here are proofs and counter-proofs which confirm and mutually corroborate. It may be objected that the abuse of spirituous drink is so frequently associated with the abuse of tobacco that it would be impossible so separate these two causes, but M. Jolly believes to have demonstrated that the abuse of tobacco must be placed amongst the first and chief cause of general paralysis. In this statement he is confirmed by the observations of other physicians who have seen

paralytics who were accustomed to drink only water but smoking to excess. M. Grisolle was called to a case of a patient, sober in other respects, but who smoked a greater part of the day and night until he fell into a state bordering on dementia; he was promptly cured when warned of the cause of his malady, and was fortunately able to renounce tobacco. M. le Docteur Maillot, President of the Council of Health to the Army, has stated that amongst the numerous cases of paralytics offering themselves every year for inspection, he finds many who are distinguished by their sobriety, but who have abused the pipe and cigar. Moreover, in certain provinces in France, La Saintongue, Limousin, and Bretagne, where they smoke very little but consume an enormons quantity of eau-die-vie, general paralysis is scarcely ever known.

This testimony of facts is more than sufficient to prove that there is reason to attribute especially to the abuse of tobacco, the essential cause of general paralysis in lunatics, a malady which in France

figures as two-thirds in the total number of insane.

M. Jolly believes that the abuse of tobacco is not without its influence on the movement of the population, in fact, statistics prove that there is a well marked arrest of increase in the population of France. Previous to 1844, the annual excess of births over the deaths was 150,000. in 1847 it was found for the first time an excess of 107,000 deaths more than births; in 1854 there was showed an excess of 69,000 deaths, which with 150,000 for 1853 made a total loss of 219,000 people in two years. It was in vain they tried to explain these sad results by the dearness of provisions, by wars, or by epidemics, causes which make only a feeble disturbance on the population. They did not dream that the increasing number of insane and paralytic people could no longer be reckoned upon for the reproduction of the species. It has moreover been proved that tobacco acts as a repeller of virility. Of this M. Segales has recently cited a striking example. Its abuse strikes a blow not only to the muscular force and intellectual faculties, but likewise in the conservation of the species.

M. Morel, a distinguished French writer, has ably treated upon those organic dspositions in the human race, which are transmittable from one generation to another.\* It is not known how far this principle extends, but it is known that it goes beyond form and appearances, that morbid disposition and predispositions are inherited from parent to children. The tendency to nervous maladies, to epilepsy, insanity, as well as gout, rheumatism, scrofula, &c., acquired by some part of the ancestry, becomes handed down to the descendants, and the taint may become more and more pronounced in every generation. Whatever may be the form of physical degradation, or whatever may be the form of lesion experienced by the individual, the deviation from the normal type of humanity shows itself in succeeding generations by internal and external signs, representing enfeebled faculties, an addiction to the worst tendencies and vices of human nature, and a limitation of intellectual life, to a certain degree under which the individual is no longer in a condition

to fulfil the functions of humanity.

<sup>\*</sup> Traité des dégénérescences physiques, intellectuelles et morales de l'Espéce Humaine, et les causes qui produisent les variétés maladives, par le Docteur B.A. Morel, medicin en chef de l'Asile de St. You, &c. Paris.

In an examination of the tables of mortality for the last 20 years it is observed that the deaths are much more numerous in males than in females from between the ages of 30 and 50, so that the number of women which before that epoch was less than that of the men, begins to exceed it more and more, while the number of widows and old women becomes augmented, a result which by no means can contribute to the growth of the population. In seeking for the cause of this fearful gap which takes place in the ranks of men, at the most flourishing perid of their life, statistics of mortality teach us that the great number of these deaths is owing to diseases of the nervous centres, and to different forms of mental maladies, and from paralysis. Now we have before shown, says M. Jolly, that as the abuse of tobacco stands on the first rank amongst the causes of these kinds of affections, it cannot be doubted that this exotic poison may have a manifest influence on the arrest of population as shown by statisticians. Has tobacco (asks M. Jolly)

been sent for us from America to dry up the sources of life?

Since however the evil has arrived at this degree of gravity, it is high time that we should think of a remedy. There are various measures which might be proposed. In the first place it would be desirable to substitute in commerce the tobaccos of the Levant, of Greece, Arabia, Havanna, Paraguay, and the Brazils, all poor in nicotine, for other tobaccos more or less saturated with this alkaloid. We would tax all land given up to the cultivation of this poisonous plant. In France alone there are 20,000 acres under cultivation for tobacco. Unfortunately it is not probable that such a project will be realized, we may therefore mention a measure proposed by M. Jolly which consists in depriving the native and other kinds of tobacco of their excess of nicotine. This could be done only with difficulty by any direct means, but indirectly it might be accomplished by using pellets of cotton, which, introduced into the tubes of the pipe or in cigar holders would retain the nicotine in its passage, at any rate chemists might direct their efforts towards this object, that is to say, the elimination of nicotine, by so doing they would render a real service to humanity. What is necessary at the same time is to enlighten the public on the different kinds of tobacco as to their hygienic qualities, and on the diseases which have their origin in the use of tobacco.

The use of tobacco ought to be strictly prohibited in all educational establishments. No one should be permitted to use narcotics and stimulants before the age of puberty, or before the mental and bodily powers are developed. Such prohibitive measures would prevent a great number of young men from contracting a mischievous habit at an age when they cannot foresee the consequences of it, and from ruining their constitution and strength before they have finished their physical development. The sale of this merchandise ought to be under the disposition of police regulations, which should interdict or prevent all retailers from delivering tobacco and spirits to children under sixteen years of age.

How far man may lawfully subject himself to artificial influences which exercise a very baneful effect upon his physical and moral nature, and perpetuate to unknown generations, conditions unfavourable for the perfect development which the infinite wisdom of the Almighty has ordained, is a subject vitally important to all. If there be any truth in the belief that links in the chain of healthy progress are broken by morbid habits and vices, in which tobacco smoking must be considered to rank, it becomes our duty as opportunity offers, to express strongly

the views which have been put forth in this paper.

Most smokers have much to say in favour of the practice of smoking; the fact which they allege is, that it has a tranquillising and soothing influence on the brain. Some describe it as the pleasure of a reverie, consequent upon the temporary annihilation of thought. Mr. G. F. Lewis, who has had many opportunities of conversing with great smokers in Germany, says he could fancy they had practically discovered a way of liberating the mind from the trammels of the body, giving it a free range and more undisturbed liberty of action; he regrets he never experienced the much-to-be-desired effect upon himself. I fully concur in this opinion.

Dr. E. Smith believes the action of tobacco must be antagonistic to health; for although its effects may not be always evident to the observer, they are oftentimes secretly known to the victim. He says, justly, "A man who passes through life with disturbances to the vital processes by the habitual use of a narcotic drug, must however have many disadvantages to contend with. No bad result may appear on the surface, but the evils resulting are not unknown to the medical profession."

That stimulation and narcotism may be safely and lawfully employed at certain periods and under certain circumstances has been proved by the experience of multitudes of intelligent persons of all ranks in all nations; but in view of the deplorable evils which ensue from the injudicious and unrestricted use of tobacco in the early periods of life, and associated—as it too frequently is—with alcohol in later periods, it must be considered dangerous to say anything which is calculated to

encourage its use.

Observing almost daily as I do, the injurious effects of tobacco and alcohol, and the inroads they make upon the national health and strength, and feeling convinced that thousands of persons are dispossessing themselves, and perhaps their offspring, of physical and mental energy by employing in excess these substances as instruments of pleasure, I conceive there are strong reasons for considering it criminal, and for making it penal for persons who drink and smoke in excess, and who damage themselves to such an extent as to render themselves incapable for performing work, and of sustaining an independent position as members of society.

It is becoming evident, by statistical inquiries, that our prisons, lunatic asylums, and workhouses are crowded with inmates who have brought upon themselves poverty, disease, insanity, old age, and a premature death, from excessive indulgence, mainly in tobacco and alcohol. The burden to ratepayers also, is becoming so heavy, that it is a question for consideration how far it will be longer tolerated, and whether it cannot be legitimately reduced by placing a salutary check upon the inebriate practices of society, which are call ing aloud for immediate

action throughout this great nation.

## APPENDIX.

OBSERVATIONS ON THE PRINCIPLES AND EFFECTS OF TOBACCO, BY
THE LATE SIR B. C. BRODIE BART.

"The empyreumatic oil of tobacco is produced by distillation of that herb at a temperature above that of boiling water. One or two drops of this oil (according to the size of the animal) placed on the tongue will kill a cat in the course of a few minutes. A certain quantity of the oil must be always circulating in the blood of an habitual smoker, and we cannot suppose that the effects of it on the system can be

merely negative.

"But the ill effects of tobacco are not confined to the nervous system. In many instances there is a loss of the healthy appetite for food, the imperfect state of the digestion being soon rendered manifest by the loss of flesh and the sallow countenance. It is difficult to say what other diseases may not follow the imperfect assimilation of food continued during a long period of time. So many causes are in operation in the human body which may tend in a greater or lesser degree to the production of organic changes in it, that it is only in some instances we can venture to pronounce as to the precise manner in which a disease that proves mortal has originated. From cases, however, which have fallen under my own observation, and from a consideration of all the circumstances, I cannot entertain a doubt that, if we could obtain accurate statistics on the subject, we should find that the value of life in inveterate smokers is considerably below the average. Nor is this opinion in any degree contradicted by the fact that there are individuals who, in spite of the inhalation of tobacco smoke live to be old, and without any material derangement of the health; analogous exceptations to the general rule being met with in the case of those who have indulged too freely in the use of spirituous and fermented liquors.

"In the early part of the present century, tobacco smoking was almost wholly confined to what are commonly called the lower grades of society. It is only every now and then that any one who wished to be considered as a gentleman was addicted to it. But since the war on the Spanish Peninsula, and the consequent substitution of the cigar for the tobacco pipe, the case has been entirely altered. The greatest smokers at the present time are to be found, not amongst those who live by their bodily labour, but among those who are more advantageously situated, who have better opportunities of education, and of whom we have a right to expect that they should constitute the most intelligent and thoughtful members of the community. Nor is the practice confined to grown-up men. Boys, even at the best schools, get the habit of smoking, because they think it manly and fashionable to do so; not unfrequently because they have the example set them by their tutors, and partly because there is no friendly voice to warn them as to the special ill consequences to which it may give rise where the process of growth is not yet completed, and the organs are not yet fully

developed."

## THINGS TO THINK ON BY PATRIOTS AND PHILANTHROPISTS.

Of Smoking the late Rev. Canon Stowell said,—"It is frightful to think what a canker is eating into the vitals of the nation, blighting its young men, squandering its resources, undermining its health, and depraying its morals."

The Rev. Canon Dale's opinion of the habit of smoking and the em-

ployment of efforts for its repression :-

"DEAR SIR,-I have attentively considered the principles of the British Anti-Tobacco Society, a copy of which you did me the favour to lend, and I see nothing in them to which I can object—much that I cordially approve. The evils they are designed to encounter and remedy are rapidly increasing and threaten physically, mentally, morally, and above all spiritually, to deteriorate our population. It leads I fear silently, stealthily, and therefore the more effectually to the neglect of social obligations, and the violation of the laws of God. Were it not that "with God all things are possible," I should despair of any successful result to the operations of such a Society. But the cause in which you are engaged is that of patriotism, philanthropy, and piety combined, and, if it be hard to reclaim those in whom the habit has become inveterate, you may at least be so far successful as to deter the young from an indulgence which is at once injurious to the body, debasing to the mind, and dangerous if not destructive to the soul.

I am, dear Sir,

Your faithful Servant,

Mr. Reynolds.

THOMAS DALE."

Dr. James Hamilton says:—"You will confer a great boon on our industrious classes if you can persuade them to exchange their tobacco for books, wholesome food, and decent clothing; and if you could only extinguish the pipes of London, I am sure you would go far to shut up many of its public-houses."

The following are some of Dr. Adam Clarke's counsels to Ministers of religion against smoking and snuff taking.—

1st.—For your health's sake, which must be naturally injured.

2nd.—For the sake of your property, which, if you are poor, must be impaired by it; if rich, you may save the pence (if only pence) for those who are destitute of bread, and to whom a penny would sometimes be as an angel of God.

3rd .- For the sake of your time. Is there no need of prayer, read-

ing, or study?

4th.—For the sake of your friends, who cannot fail to be pained in your company.

5th.—For the sake of your voice, which continuance in Snuffing will

infallibly ruin.

6th.—For the sake of your memory, that it may be clear and unclouded to the end.

And lastly .- FOR THE SAKE OF YOUR SOUL.

## MEDICAL OPINIONS ON SMOKING.

Dr. COPLAND, F.R.S., Author of a Medical Dictionary, says,

"The habit of smoking tobacco has given rise to the following ill effects, which have come under my observation in numerous instances, and that of all the medical men with whom I am acquainted. Smoking weakens the digestive and assimilating functions, impairs the due elaboration of the chyle and of the blood, and prevents a healthy nutrition of the several structures of the body. Hence result, especially in young persons, an arrest of the growth of the body; low stature; a pallid and sallow hue of the surface; an insufficient and an unhealthy supply of blood, and weak bodily powers. In persons more advanced in life, these effects, although longer in making their appearance, supervene at last, and with a celerity in proportion to the extent to which this vile habit is carried."

The late Dr. HODGKIN, Bedford Square, London, says,

"Hundreds of persons have passed under my examination as applicants for assurance on their lives, and consequently, imagining themselves to be in a fair state of health, warranting their acceptance; and amongst these I have not unfrequently met with such a state of general depression of the system, feeble circulation, and nervous irritability, as rendered it necessary to reject or defer the proposals, and which I could only attribute to the habits of the parties in relation to tobacco."

## The late Dr. CONQUEST, Finsbury Square, London, says,

"As a medical man, I have no hesitation in affirming my conviction, based on long and extensive observation, that the use of snuff and tobacco must be classed with the worst evils existing in society. I doubt, if, under any circumstances, the human constitution is benefited by their employment; and language would fail me, were I to attempt to detail the bodily and mental diseases they produce. In my now lengthened medical life I have often seen the worst and most intractable forms of indigestion, and the most distressing and fatal cases of stomach and liver diseases, traceable to snuff and tobacco, and I am confident this poisonous weed produces every variety and degree of nervous derangement, from depression of spirits to palsy, apoplexy, and insanity,

#### Dr. PIDDUCK, M.R.C.S., Montague Place, London, says,

"In no instance is the sin of the father more strikingly visited upon his children than the sin of tobacco smoking. The enervation, the hypochondriasis, the hysteria, the insanity, the dwarfish deformities, the consumption, the suffering lives and early deaths of children of inveterate smokers, bear ample testimony to the feebleness and unsoundness of the constitution transmitted by this pernicious habit."

#### Dr. WEBSTER, says,

At a meeting of the Medical and Chirurgical Society of London, on 2nd May, 1854, a paper was read, entitled, "Additional Remarks on the Statistics and Morbid Anatomy of Mental Diseases," by Dr. Webster, wherein he cites, among the causes, the great use of tobacco, which opinion he supported by reference to the statistics of insanity in Germany. "Loss of memory takes place in an extraordinary degree in the smoker, more than in the drunkard, evidently from tobacco acting more on the brain than alcohol."

Mr. HIGGINBOTTOM, M.R.C.S., of Nottingham, says,

"After fifty years of most extensive and varied practice in my profession, I have come to the decision, that smoking is a main cause of ruining our young men, pauperising the working men, and rendering comparatively useless the best efforts of Ministers of Religion."

Mr. MARTIN, Sen., of Reigate, in addressing Medical Students, says :-

"My DEAR YOUNG FRIENDS, — Permit me to address you in these terms, and to offer to your persual the following observations:—You may be assured that smoking, although it may not immediately poison the smoker, yet it has a pernicious agency on the organs of digestion and assimilation—sends unhealthy blood to the rain and its morbid influences pervade the system; inducing various forms of vspepsia and impairing the functions of the brain and spinal cord. Notwithstanding e argument, if it can be so called, as to the comparative injury of smoking in deration, or in excess, a question of degree—why smoke at all? I affirm that no n is the wiser or better for smoking."

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