AN

ESSAY

ON THE

INFLUENCE OF TOBACCO

UPON LIFE AND HEALTH.

BY R. D. MUSSEY, M. D.

Price ten cents.

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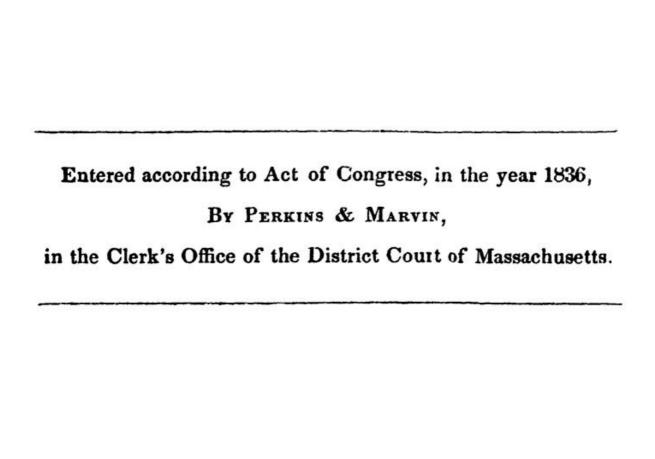
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ESSAY ON TOBACCO.

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In the great kingdom of living nature, man is the only animal that seeks to poison or destroy his own instincts, to turn topsy-turvy the laws of his being, and to make himself as unlike, as possible, that which he was obviously designed to be.

No satisfactory solution of this extraordinary propensity has been given, short of a reference to that—

> "first disobedience and the fruit Of that forbidden tree, whose mortal taste Brought death into the world and all our wo, With loss of Eden."

While the myriads of sentient beings, spread over the earth, adhere, with unyielding fidelity, to the laws of their several existences, man exerts his superior intellect in attempting to outwit nature, and to show that she has made an important mistake, in his own case. Not satisfied with the symmetry and elegance of form given him by his Creator, he transforms himself into a hideous monster, or copies upon his own person, the proportions of some disgusting creature, far down in the scale of animal being. Not content with loving one thing and loathing another, he perseveres in his attempts to make bitter sweet, and sweet bitter, till nothing but the shadow is left, of his primitive relishes and aversions. This is strikingly exemplified in the habitual use of the narcotic or poisonous vegetables.

History.

Tobacco is generally regarded as having originated in America. Its name appears to have been derived from Tabaco, a province of Yucatan, in Mexico, from which place it is said to have been first sent to Spain; or, as some assert, though with less probability, from an instrument named Tabaco, employed in Hispaniola in smoking this article.

Cortez sent a specimen of it to the king of Spain in 1519. Sir Francis Drake is said to have introduced it into England about the year 1560, and, not far from the same time, John Nicot carried it to France; and Italy is indebted to the Cardinal Santa Croce for its first appearance in that country.

Traces of an ancient custom of smoking dried herbs having been observed, it has been suggested that tobacco might have been in use in Asia, long before the discovery of America. The fact, however, that this plant retains, under slight modifications,

the name of tobacco, in a large number of Asiatic as well as European dialects, renders almost certain the commonly received opinion, that it emanated from this country, and from this single origin has found its way into every region of the earth, where it is at present known. If this be the fact, the Western hemisphere has relieved itself of a part of the obligation due to the Eastern, for the discovery and diffusion of distilled spirit.

Early in the history of our country, the cultivation and use of tobacco were by no means confined to central America. In Hawkins' voyage of 1655, the use of this article in Florida is thus described: Floridians, when they travele, have a kind of herbe dryed, which, with a cane and an earthen cup in the end, with fire and the dryed herbes put together, do sucke thorow the cane the smoke thereof, which smoke satisfieth their hunger." Still earlier, viz. in 1535, Cartier found it in Canada: "There groweth a certain kind of herbe, whereof in sommer, they make great provision for all the yeere, making great account of it, and onely men use it; and first they cause it to be dried in the sunne, then weare it about their necks wrapped in a little beaste's skinne, made like a little bagge, with a hollow peece of stone or wood like a pipe; then when they please they make powder of it, and then put it in one of the ends of said cornet or pipe, and laying a cole of fire upon it, at the other end sucke so long, that they fill their bodies full of smoke, till that it cometh out of their mouth and nostrils, even as out of the tonnele of a chimney."

In Great Britain the progress of the custom of using tobacco was not unobserved. The civil and ecclesiastical powers were marshalled against it, and Popish anathemas and Royal edicts with the severest penalties, not excepting death itself, were issued. In the reigns of Elizabeth, of James and of his successor Charles, the use and importation of tobacco were made subjects of legislation. In addition to his Royal authority, the worthy and zealous king James threw the whole weight of his learning and logic against it, in his famous 'Counterblaste to Tobacco.' He speaks of it as being "a sinneful and shameful lust" -as "a branch of drunkennesse"-as "disabling both persons and goods"-and in conclusion declares it to be "a custome loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and in the black and stinking fume thereof, nearest resembling the horrible Stigian smoke of the pit that is bottomlesse."

In the English colonies of North America, it is no wonder that legislation was resorted to, for the purpose of regulating the use of this article, when it had become an object of so much value, as that "one hundred and twenty pounds of good leaf tobacco" would purchase for a Virginian planter a good and choice wife just imported from England. In one of the provincial governments of New England, a law was passed, forbidding any person "under twenty-one years of age, or any other, that hath not already accustomed himself to the use thereof, to take any tobacko untill he hath brought a certificate under the hands of some who are approved for knowledge and skill in phisick, that it is useful for him, and also that hee hath received a lycense from the Courte for the same. And for the regulating of those, who either by their former taking it, have to their own apprehensions, made it necessary to them, or uppon due advice are persuaded to the use thereof,—

"It is ordered, that no man within this colonye, after the publication hereof, shall take any tobacko publiquely in the streett, high wayes or any barne yardes, or uppon training dayes, in any open places, under the penalty of six-pence for each offence against this order, in any the particulars thereof, to bee paid without gainsaying, uppon conviction, by the testimony of one witness, that is without just exception, before any one magistrate. And the constables in the severall townes are required to make presentment to each particular courte, of such as they doe understand, and can evict to bee transgressors of this order."

In the old Massachusetts colony laws, is an act

with a penalty for those, who should "smoke tobacco within twenty poles of any house, or shall take tobacco at any Inn or victualling house, except in a private room, so as that neither the master nor any guest shall take offence thereat."

In the early records of Harvard University is a regulation ordering that "no scholar shall take tobacco unless permitted by the President, with the consent of his parents, on good reason first given by a physician, and then only in a sober and private manner."

At a town-meeting in Portsmouth, N. H. in 1662, it was "ordered that a cage be built, or some other means devised, at the discretion of the Selectmen, to punish such as take tobacco on the Lord's day, in time of publick service." But it does not appear that this measure had all the effect intended, for, ten years afterwards, the town "voted that if any person shall smoke tobacco in the meeting-house during religious service, he shall pay a fine of five shillings for the use of the town."

But all these forces have been vanquished, and this one weed is the conqueror. Regardless of collegial and town regulations, of provincial laws, and of royal, parliamentary and papal power, tobacco has kept on its way, till it has encircled the earth, and now holds in slavery a larger number of human minds than any other herb.

Effects of Tobacco upon Animal Life.

To the organs of smell and taste in their natural condition, it is one of the most disgusting and loath-some of all the products of the vegetable kingdom.*

Dr. Franklin ascertained, that the oily material, which floats upon the surface of water, upon a stream of tobacco smoke being passed into it, is capable, when applied to the tongue of a cat, of destroying life in a few minutes.

Mr. Brodie applied one drop of the empyreumatic oil of tobacco to the tongue of a cat; it occasioned immediate convulsions and an accelerated breathing. Five minutes after, the animal lay down on the side, and presented, from time to time, slight convulsive movements. A quarter of an hour after, it appeared recovered. The same quantity of the oil was applied again, and the animal died in two minutes.

In December, 1833, aided by several gentlemen of the medical class, and occasionally in the presence of other individuals, I made a number of experiments upon cats and other animals, with the distilled oil of tobacco.

^{*} This is proved by applying it to these organs in infancy, among those children whose parents do not use tobacco. Caspar Hausser, who was fed wholly on farinaceous food and water, from infancy to the age of sixteen or seventeen years, was made sick to vomiting by walking for a "considerable time by the side of a tobacco field."

EXPERIMENT 1.

A small drop of the oil was rubbed upon the tongue of a large cat. Immediately the animal uttered piteous cries and began to froth at the mouth.

In 1 minute the pupils of the eyes were dilated and the respiration was laborious.

- " 2½ do. vomiting and staggering.
- " 4 do. evacuations; the cries continued, the voice hoarse and unnatural.
- " 5 do. repeated attempts at vomiting.
- " 7 do. respiration somewhat improved.

At this time a large drop was rubbed upon the tongue. In an instant the eyes were closed, the cries were stopped, and the breathing was suffocative and convulsed. In one minute the ears were in rapid convulsive motion, and, presently after, tremors and violent convulsions extended over the body and limbs. In three and an half minutes the animal fell upon the side senseless and breathless, and the heart had ceased to beat.

Slight tremors of the voluntary muscles, particularly of the limbs, continued, more or less, for nineteen minutes after the animal was dead. Those of the right side were observed to be more and longer affected than those of the left.

Half an hour after death the body was opened, and the stomach and intestines were found to be contracted and firm, as from a violent and permanent spasm of the muscular coat. The lungs were empty and collapsed. The left side of the heart, the aorta and its great branches were loaded with black blood. The right side of the heart and the two cavæ contained some blood, but were not distended. The pulmonary artery contained only a small quantity of blood. The blood was every where fluid.

EXPERIMENT 2.

A cat was the subject of this experiment. The general effects were very much like those in the last, excepting, perhaps, that the oil operated with a little less energy. This cat was said to have lived for several years, in a room almost perpetually fumigated with tobacco smoke. The history of the animal employed in Experiment 1, was unknown.

EXPERIMENT 3.

Three drops of the oil of tobacco were rubbed upon the tongue of a full-sized, but young, cat. In an instant the pupils were dilated and the breathing convulsed; the animal leaped about as if distracted, and presently took two or three rapid turns in a small circle, then dropped upon the floor in frightful convulsions, and was dead in two minutes and forty-five seconds from the moment that the oil was put upon the tongue.

EXPERIMENT 4.

To the tongue of a young and rather less than half-grown cat, a drop of the oil of tobacco was applied. In fifteen seconds the ears were thrown into rapid and convulsive motions,—thirty seconds fruitless attempts to vomit. In one minute convulsive respiration; the animal fell upon the side. In four minutes and twenty seconds violent convulsions. In five minutes the breathing and the heart's motion had ceased. There was no evacuation by the mouth or otherwise. The vital powers had been too suddenly and too far reduced to admit of a reaction. The tremors, which followed death, subsided first in the superior extremities, and in five minutes ceased altogether. The muscles were perfectly flaccid.

EXPERIMENT 5.

In the tip of the nose of a mouse, a small puncture was made with a surgeon's needle, bedewed with the oil of tobacco. The little animal, from the insertion of this small quantity of the poison, fell into a violent agitation, and was dead in six minutes.

EXPERIMENT 6.

Two drops of the oil were rubbed upon the tongue of a red squirrel. This animal, so athletic as to render it difficult to secure him sufficiently long for the application, was in a moment seized with a violent agitation of the whole body and limbs, and was perfectly dead and motionless in one minute.

EXPERIMENT 7.

To the tongue of a dog rather under the middle size, five drops of the oil of tobacco were applied. In forty-five seconds he fell upon the side, got up, retched, and fell again. In one minute the respiration was laborious, and the pupils were dilated. In two minutes the breathing was slow and feeble, with puffing of the cheeks. In three minutes the pupils were smaller but continually varying. The left fore leg and the right hind leg were affected with a simultaneous convulsion or jerk, corresponding with the inspiratory motions of the chest. This continued for five minutes.

In nine minutes alimentary evacuations; symptoms abated; and the animal attempted to walk. At ten minutes two drops of the oil were applied to the tongue. Instantly the breathing became laborious, with puffing of the cheeks; pupils much dilated. The convulsive or jerking motions of the two limbs appeared as before, recurring regularly at the interval of about two seconds, and exactly corresponding with the inspirations. In twelve minutes the pupils were more natural; slight frothing at the mouth, the animal still lying upon the side. At this time a drop

of the oil was passed into each nostril. The labor of the respiration was suddenly increased, the jaws locked.

In twenty-two minutes no material change; the jaws were separated and five drops of the oil were rubbed on the tongue. In one minute the pupils were entirely dilated, with strong convulsions. In one and an half minutes, in trying to walk, the animal fell. In three minutes the eyes rolled up, and convulsions continued. In six minutes, the plica semilunaris so drawn as to cover half the cornea. In seven minutes, slight frothing at the mouth. In forty minutes the inspirations were less deep, the convulsions had been unremitted, the strength failing. From this time he lay for more than half an hour nearly in the same state; the strength was gradually sinking, and as there was no prospect of recovery, he was killed. In this case, the true apoplectic puffing of the cheeks was present the greater part of the time.

From the foregoing, and from additional experiments, which it is not necessary to give in detail, it appeared, that when applied to a wound made in the most sensitive parts of the integuments, the oil of tobacco, though it caused a good deal of pain, had a far less general effect than when applied to the tongue. Rats were less affected than cats. Two

and sometimes three drops rubbed upon the tongue of a rat, did not kill in half an hour.

Three large drops rubbed upon the tongue of a full-sized cat, usually caused death in from three to ten minutes, and in one instance, already stated, in two minutes and forty-five seconds. One drop passed into the jugular vein of a large dog, occasioned an immediate cry, followed in a few moments by staggering, convulsive twitchings of the voluntary muscles, and vomiting.

In those cases in which full vomiting occurred, evident relief followed. Young animals suffered much more than those, which had come to their full growth and vigor. In those animals, whose lives were suddenly destroyed by the tobacco, no coagulation of the blood took place. The bodies of several cats were examined the next day after death, and only in a single instance was a slight coagulum observed; and this was in a cat, whose constitution possessed strong powers of resistance, and whose death was comparatively lingering.

It is not improbable, that the charge of inhumanity may be made against experiments prosecuted upon defenceless animals, with a poison so painful and destructive in its operation as tobacco; the justice of this charge is freely admitted, if such experiments be made merely for the gratification of curiosity, and not with the object and reasonable hope of making them useful to mankind, and of influencing, at least, some few individuals, to abandon the practice (humane can it be called?) of administering this poison to themselves and their children, till it occasions disease and death. Indeed, there are but few, who would willingly witness more than a single experiment of this kind, with no prospect of benefit to result from it.

When applied to sensitive surfaces of considerable extent, even in a form somewhat dilute, tobacco often produces the most serious effects. The tea of tobacco has been known to destroy the life of a horse, when forced into his stomach to relieve indisposition. When used as a wash, to destroy vermin upon certain domestic animals, tobacco tea has been known to kill the animals themselves. A farmer not long since assured me, that he had destroyed a calf in this manner.

"A woman applied to the heads of three children, for a disease of the scalp, an ointment prepared with the powder of tobacco and butter; soon after, they experienced dizziness, violent vomitings and faintings, accompanied with profuse sweats." [Orfila.]

The celebrated French poet, Santeuil, came to his death through horrible pains and convulsions, from having taken a glass of wine, with which some snuff had been mixed.

The tea of twenty or thirty grains of tobacco introduced into the human body, for the purpose of relieving spasm, has been known repeatedly to destroy life. The same tea, applied to parts affected with itch, has been followed by vomiting and convulsions. The same article, applied to the skin on the pit of the stomach, occasions faintness, vomiting, and cold sweats.

I knew a young man, who, only from inhaling the vapor arising from the leaves of tobacco immersed in boiling water, was made alarmingly sick.

A medical friend assured me that he was once thrown into a state of great prostration and nausea, from having a part of his hand moistened, for a few minutes, in a strong infusion of tobacco.

Col. G. says, that during the late war, under hard service on the Canadian frontier, the soldiers not unfrequently disabled themselves for duty, by applying a moistened leaf of tobacco to the armpit. It caused great prostration and vomiting. Many were suddenly and violently seized soon after eating. On investigation, a tobacco leaf was found in the armpit.

Dr. M. Long, of Warner, N. H., writes me, under date of April 26, 1834, that, on the 6th of May, 1825, he was consulted by Mrs. F. on account of her little daughter L. F., then five years old, who had a small ring-worm, scarcely three-fourths of an inch in diameter, situated upon the root of the nose. Her object was to ascertain the Doctor's opinion, as to the propriety of making a local application of tobacco in the case. He objected to it as an exceedingly hazardous measure; and, to impress his opinion more fully,

related a case, a record of which he had seen, in which a father destroyed the life of his little son, by the use of tobacco spittle upon an eruption or humor of the head.

Immediately after the Doctor left the house, the mother besmeared the tip of her finger with a little of the "strong juice" from the grandmother's tobacco pipe, and proceeded to apply it to the ring-worm, remarking, that " if it should strike to the stomach it must go through the nose." The instant the mother's finger touched the part affected, the eyes of the little patient were rolled up in their sockets, she sallied back, and in the act of falling, was caught by the alarmed mother. The part was immediately washed with cold water, with a view to dislodge the poison. But this was to no purpose, for the jaws were already firmly locked together, and the patient was in a senseless and apparently dying state. The Doctor, who had stopped three-fourths of a mile distant, to see a patient, was presently called in. The symptoms were "coldness of the extremities, no perceptible pulse at the wrists, the jaws set together, deep insensibility, the countenance deathly." He succeeded in opening the jaws, so as to admit of the administration of the spirits of ammonia and lavender; frictions were employed, and every thing done, which, at the time, was thought likely to promote resuscitation, but "it was an hour, or an hour and an half, before the little patient was so far recovered as to be able to speak."

"Till this time," says Dr. S., "the child had been robust and healthy, never having had but one illness that required medical advice; but, since the tobacco experiment, she has been continually feeble and sickly. The first four or five years after this terrible operation, she was subject to fainting fits every three or four weeks, sometimes lasting from twelve to twenty-four hours; and many times, in those attacks, her life appeared to be in imminent danger. Within the last three or four years, those turns have been less severe."

The foregoing facts serve to show, that tobacco is one of the most active and deadly vegetable poisons known; it acts directly upon the nervous power, enfeebling, deranging, or extinguishing the actions of life. Is it possible, that the habitual use of an article of so actively poisonous properties can promote health, or indeed fail to exert an injurious influence upon health? It will readily be admitted, that the daily use of any article, which causes an exhaustion of the nervous power, beyond what is necessarily occasioned by unstimulating food and drink, and the ordinary physical agents, as heat, cold, light, together with mental and corporeal exertion, &c., is not only useless but hurtful, tending directly to produce disease and premature decay. Such is tobacco. evidence of this is furnished by a departure, more or less obvious, from healthy action, in the organic, vital movements of a large majority of tobacco consumers.

From the habitual use of tobacco, in either of its forms of snuff, cud, or cigar, the following symptoms may arise; a sense of weakness, sinking, or pain at the pit of the stomach; dizziness or pain in the head; occasional dimness or temporary loss of sight; paleness and sallowness of the countenance, and sometimes swelling of the feet; an enfeebled state of the voluntary muscles, manifesting itself sometimes by tremors of the hands, sometimes by weakness, tremulousness, squeaking or hoarseness of the voice, rarely a loss of the voice; disturbed sleep, starting from the early slumbers with a sense of suffocation or the feeling of alarm; incubus, or nightmare; epileptic or convulsion fits; confusion or weakness of the mental faculties; peevishness and irritability of temper; instability of purpose; seasons of great depression of the spirits; long fits of unbroken melancholy and despondency, and, in some cases, entire and permanent mental derangement.*

The animal machine, by regular and persevering reiteration or habit, is capable of accommodating itself to impressions made by poisonous substances, so far as not to show signs of injury under a superficial observation, provided they are slight at first, and gradually increased, but it does not hence follow that

^{*} I have recently seen two cases; one caused by the excessive use of snuff, the other by the chewing of tobacco and swallowing the saliva.

such impressions are not hurtful. It is a great mistake, into which thousands are led, to suppose that every unfavorable effect or influence of an article of food, or drink, or luxury, must be felt immediately after it is taken. Physicians often have the opportunity of witnessing this among their patients.

The confirmed dyspeptic consults his physician for pain or wind in the stomach, accompanied with headache or dizziness, occasional pains of the limbs, or numbness or tremors in the hands and feet, and sometimes with difficult breathing, disturbed sleep, and a dry cough, and huskiness of the voice in the morning. The physician suggests the propriety of his laying aside animal food for a time; but the patient objects, alleging that he never feels so well as when he has swallowed a good dinner. He is then advised to avoid spirit, wine, cider, beer, &c.; the reply is, "it is impossible, that the little I take can do me hurt; so far from that, it always does me good; I always feel the better for it. I do not need any one to tell me about that." He is asked if he uses tobacco. "Yes, I smoke a little, chew a little, and snuff a little." You had better leave it off altogether, Sir. "Leave it off? I assure you, Doctor, you know but little about it. If I were to leave off smoking, I should throw up half my dinner." That might do you no harm, Sir. "I see you do not understand my case, Doctor; I have taken all these good things, for many years, and have enjoyed good health. They never injured me. How could they have done so without my perceiving it? Do you suppose I have lived so long in the world without knowing what does me good, and what does not?" It would appear so, Sir, and you are in a fair way to die, without acquiring this important knowledge.

The poor man goes away, in a struggle between the convictions of truth and the overwhelming force of confirmed habit. Under the sustaining power of a good constitution, and in the activity of business, he never dreamed of injury from the moderate indulgence, as he regarded it, in the use of stimulants, as spirit, wine, tobacco, &c., till the work was done. His is the case of hundreds of thousands.

The vital principle, in the human body, can so far resist the influences of a variety of poisons, slowly introduced into it, that their effects shall be unobserved, till, under the operation of an exciting or disturbing cause, their accumulated force breaks out, in the form of some fearful or incurable disease. The poison, which comes from vegetable decompositions, on extensive marshes and the borders of lakes, after being received into the body, remains apparently harmless, in some instances, a whole year, before it kindles up a wasting intermittent, or a destructive bilious remittent fever.

Facts of this nature show, that pernicious influences may be exerted upon the secret springs of life, while we are wholly unconscious of their operation. Such is the effect of the habitual use of tobacco and other narcotics, and of all stimulants which, like them, make an impression upon the whole nervous system, without affording the materials of supply or nutrition.

It is an alleged fact, that, previously to the age of forty years, a larger mortality exists in Spanish America than in Europe. The very general habit of smoking tobacco, existing among children and youth as well as adults, it has been supposed, and not without reason, might explain this great mortality. Like ardent spirits, tobacco must be peculiarly pernicious in childhood, when all the nervous energy is required to aid in accomplishing the full and perfect developement of the different organs of the body, and in ushering in the period of manhood. I once knew a boy, eight years of age, whose father had taught him the free use of the tobacco cud, four years before. He was a pale, thin, sickly child, and often vomited up his dinner.

To individuals of sedentary habits and literary pursuits, tobacco is peculiarly injurious, inasmuch as these classes of persons are, in a measure, deprived of the partially counteracting influence of air and exercise. I have prescribed for scores of young men, pursuing either college or professional studies, who had been more or less injured by the habitual use of this plant.

In the practice of smoking there is no small danger. It tends to produce a huskiness of the

mouth, which calls for some liquid. Water is too insipid, as the nerves of taste are in a half-palsied state, from the influence of the tobacco smoke; hence, in order to be tasted, an article of a pungent or stimulating character is resorted to, and hence the kindred habits of smoking and drinking. A writer in one of the American periodicals, speaking of the effect of tobacco, in his own case, says, that smoking and chewing "produced a continual thirst for stimulating drinks; and this tormenting thirst led me into the habit of drinking ale, porter, brandy, and other kinds of spirit, even to the extent, at times, of partial intoxication." The same writer adds, that "after he had subdued his appetite for tobacco, he lost all desire for stimulating drinks." The snufftaker necessarily swallows a part of it, especially when asleep, by which means its enfeebling effects must be increased.

The opinion that tobacco is necessary to promote digestion is altogether erroneous. If it be capable of soothing the uneasiness of the nerves of the stomach, occurring after a meal, that very uneasiness has been caused by some error of diet or regimen, and may be removed by other means. If tobacco facilitate digestion, how comes it, that, after laying aside the habitual use of it, most individuals experience an increase of appetite and of digestive energy, and an accumulation of flesh?

It is sometimes urged, that men occasionally live to an advanced age, who are habitual consumers of this article; true, and so do some men who habitually drink rum, and who occasionally get drunk; and does it thence follow that rum is harmless or promotes long life? All, that either fact proves, is, that the poisonous influence is longer or more effectually resisted, by some constitutions than by others. The man, who can live long under the use of tobacco and rum, can live longer without them.

An opinion has prevailed in some communities, that the use of tobacco operates, as a preservative against infectious and epidemic diseases. This must be a mistake. Whatever tends to weaken or depress the powers of the nervous system predisposes it to be operated upon, by the causes of these diseases. tobacco afford protection, in such cases, why does it not secure those who use it, against cholera? In no communities, perhaps, has that disease committed more frightful ravages, than where all classes of persons are addicted to the free use of this article. In Havana, in 1833, containing a stationary population of about one hundred and twenty thousand, cholera carried off, in a few weeks, if we may credit the public journals, sixteen thousand; and, in Matanzas, containing a population of about twelve thousand, it was announced that fifteen hundred perished. This makes one-eighth of the population in both places; and if, as in most other cities, the number of deaths, as published in the journals, falls short of the truth, and a considerable deduction be made from the whole population on account of the great numbers who fled on the appearance of the disease, the mortality will be still greater. In Havana, after the announcement of the foregoing mortality, and after a subsidence of the epidemic, for some weeks, it returned, and destroyed such numbers as to bring back the public alarm. The degree, in which the practice of smoking prevails, may be judged of by a fact, stated by Dr. Abbot in his Letters from Cuba, namely, that, in 1828, it was then the common estimate, that, in Havana, there was an average consumption of ten thousand dollars' worth of cigars in a day.

Dr. Moore, who resides in the province of Yucatan, in Mexico, assures me that the city of Campeachy, containing a population of twenty thousand, lost, by cholera, in about thirty days, commencing early in July, four thousand three hundred and a fraction of its inhabitants. This is a little short of one-fourth of the population; although Dr. Moore says that the people of Campeachy make it as a common remark, "we have lost one in four of our number." With reference to the habits of the people in that part of Mexico, Dr. Moore says, "every body smokes cigars. I never saw an exception among the natives. It is a common thing to see a child of two years old learning to smoke."

The opinion, that the use of tobacco preserves the teeth, is supported neither by physiology nor observation. Constantly applied to the interior of the mouth,

whether in the form of cud or of smoke, this narcotic must tend to enfeeble the gums, and the membrane covering the necks and roots of the teeth, and, in this way, must rather accelerate than retard their decay. We accordingly find, that tobacco consumers are not favored with better teeth than others; and, on the average, they exhibit these organs in a less perfect state of preservation. Sailors make a free use of tobacco and they have bad teeth.

The grinding surfaces of the teeth are, on the average, more rapidly worn down or absorbed, from the chewing or smoking of tobacco for a series of years; being observed in some instances to project but a little way beyond the gums. This fact I have observed, in the mouths of some scores of individuals in our own communities, and I have also observed the same thing in the teeth of several men, belonging to the Seneca and St. Francois tribes of Indians, who, like most of the other North American tribes, are much addicted to the use of this narcotic. In several instances, when the front teeth of the two jaws have been shut close, the surfaces of the grinders, in the upper and lower jaw, especially where the cud had been kept, did not touch each other, but exhibited a space between them of one-tenth to one-sixth of an inch, showing distinctly the effects of the tobacco, more particularly striking upon those parts, to which it had been applied in its most concentrated state.

The expensiveness of the habit of using tobacco is

no small objection to it. Let the smoker estimate the expense of thirty years' use of cigars, on the principle of annual interest, which is the proper method, and he might be startled at the amount. Six cents a day, according to the Rev. Mr. Fowler's calculation, would amount to \$3,529 30 cents; a sum which would be very useful to the family of many a tobacco consumer when his faculties of providing for them have failed.

Eighty thousand dollars' worth of cigars, it was estimated, were consumed in the city of New York in 1810; at that rate the present annual consumption would amount to more than two hundred thousand dollars. The statement of Rev. Dr. Abbot, in his Letters from Cuba, in 1828, already alluded to, is, that the consumption of tobacco, in that Island, is immense. The Rev. Mr. Ingersoll, who passed the winter of 1832-3 in Havana, expresses his belief that this is not an overstatement. He says, "call the population 120,000; say half are smokers; this, at a bit a day (i. e. 123 cents) would make between seven and eight thousand dollars. But this is too low an estimate, since not men only but women and children smoke, and many at a large expense." He says, that "the free negro of Cuba appropriates a bit (i. e. 121) cents) of his daily wages, to increase the cloud of smoke that rises from the city and country." This, in thirty years, would amount to \$7,058 72, a respectable estate for a negro, or even for a white man.

The Rev. O. Fowler, from considerable attention to the statistics of tobacco consumption in the United States, estimates the annual cost at \$10,000,000

The time lost by the use of it, at . . . 12,000,000

The pauper tax which it occasions, at . . 3,000,000

\$25,000,000

This estimate I must believe to be considerably below the truth. It has been estimated, that the consumption of tobacco in this country is eight times as great as in France, and three times as great as in England, in proportion to the population.

The habit of using tobacco is uncleanly and impolite. It is uncleanly from the foul odor, the muddy nostril, and darkly-smeared lip it confers, and from the encouragement it gives to the habit of spitting, which, in our country, would be sufficiently common and sufficiently loathsome without it.

"True politeness," said a distinguished English scholar, "is kindness, kindly expressed." The using of tobacco, especially by smoking, is any thing but kindness or the kindly expression of it, when it creates an atmosphere, which, whether it comes directly from the pipe, the cigar, or deeply imbued clothing, or worse than alligator breath, is absolutely insupportable to many, who do not use it, causing depression of strength, dizziness, headache, sickness at the stomach, and sometimes vomiting. By what rule of politeness, nay, on what principle of common

justice may I poison the atmosphere my neighbor is compelled to breathe, or so load it with an unhealthy and loathsome material as to make him uncomfortable or wretched so long as I am in his company? What would be said of the physician, who, having acquired a strong liking for asafetida, should allow himself in the constant habit of chewing it, to the great annoyance, from his foul breath, of many of his patients, as well as more or less of the healthy individuals of the families who employ him? Or how would a gentleman traveller be regarded, who should not only keep his breath constantly imbued with this asafetida, but also insist upon spurting successive mouthfuls of the tincture of it upon the floor of a stage-coach, or of the cabin of a steam-boat? Would he be commended, either for his cleanliness, politeness, or kindness? Nay, would he be tolerated in such a violation of the principles of good breeding? I have seen numbers, who have been made sick, dizzy, and pale, by the breath of a smoker; and I have seen a person vomit out of a stage-coach, from the influence of that indescribable breath, which results from alcoholic liquor and tobacco smoke.

How painful to see young men in our scientific and literary institutions—men, who are soon to lead in our national councils, to shape the morals and the manners of the circles of society, in which they will move—making themselves downright sick, day after day, and week after week, in order to form a habit of taking a disgusting poison, steeping their nerves and their intellects in its narcotic influence, the direct tendencies of which are to impair their health, to enfeeble their minds, and to disqualify them for a place in cleanly and polite society.

The use of tobacco, like that of alcoholic liquor, should be abandoned totally and forever. The plan of taking less and less daily, is seldom successful. This is what is called "trying to leave off." If a little less be taken one day, generally a little more is taken the next. A respectable patient, for whom I have prescribed on account of a severe nervous affection, has been "trying" for the last six months to quit her snuff, and she is apparently no nearer the accomplishment of her object than when she began. It does not answer to treat, with the least deference, an appetite, so unnatural and imperative as that created by a powerful narcotic; it must be denied abruptly, totally, and perseveringly.

In several of our penitentiaries, tobacco is not allowed to the inmates, almost all of whom were consumers of it. The testimony of the agents of these institutions is, that none are injured by quitting this narcotic, but, that in a few days, seldom over twenty, their uneasiness and agitation subside, their appetite is increased, and their appearance is manifestly improved. A distinguished physician has assured me, that he never knew a person sustain the least permanent injury from the disuse of tobacco, but, on the

My own observation is in perfect accordance with this remark; I have known a large number of this description, and can say that I have never conversed with an individual, who, after having been freed from the habit a year, did not confess that an advantage, greater or less, had resulted from his self-denial.

Cases Illustrative of the Effects of Tobacco.

A gentleman of distinction, in the profession of law in New Hampshire, wrote me under date of Dec. 10, 1833, as follows.

"At the age of twelve years, misled by some boyish fancy, I commenced the use of tobacco, and continued it with little restraint for about nineteen years.
Generally I was in the habit of chewing tobacco, but
sometimes for two, three or four months together, I
exchanged chewing for smoking. I have always led
a sedentary life. After attaining to manhood, my
ordinary weight was about 130 pounds; once or twice
only rising to 135, and falling not unfrequently to
125, and sometimes to 117. My appetite was poor
and unsteady, the nervous system much disordered,
and my life was greatly embittered by excessive and
inordinate fear of death. My spirits were much depressed. I became exceedingly irresolute, so that it
required a great effort to accomplish, what I now do,

even without thinking of it. My sleep was disturbed, faintings and lassitude were my constant attendants.

"I had made two or three attempts to redeem my-self from a habit, which I knew was at best useless and foolish, if not prejudicial. But they were feeble and inefficient. Once, indeed, I thought I was sure that the giving up the use of tobacco injured my health, and I finally gave up all hopes of ever ridding myself of this habit.

"In the summer of 1830, my attention was called to the subject, by some friends, whom I visited, and by the advice and example of a friend, who had renounced the practice with the most decided advantage. I thought seriously upon the subject, and felt what had scarce occurred to me before, how degrading it was to be enslaved by a habit so ignoble. I threw away my tobacco at once and entirely, and have not since used the article in any form. Yet this was not done without a great effort, and it was some months before I ceased to hanker for the pernicious weed. Since then my health has decidedly improved. I now usually weigh 145 pounds, and have arisen to 152; rarely below 145. My spirits are better. There is nothing of the faintness, lassitude, and fearful apprehensions before described. My appetite is good and my sleep sound. I have no resolution to boast of, yet considerably more than I formerly had.

"In fine, I cannot tell what frenzy may seize me; yet with my present feelings, I know not the wealth that would induce me to resume the unrestrained use of tobacco, and continue it through life."

To Dr. A. Hobbs, I am indebted for the following case which occurred in his own family connection.

"Mr. J. H. began to chew tobacco at an early age, and used it freely. When about fifty-five years old, he lost his voice and was unable to speak above the whisper for three years. During the four or five years which preceded the loss of his voice, he used a quarter of a pound of tobacco in a week. He was subject to fits of extreme melancholy; for whole days he would not speak to any one, was exceedingly dyspeptic and was subject to nightmare. When about fifty-eight years old, that is, about thirteen years ago, he abandoned his tobacco. His voice gradually returned, and in one year was pretty good; his flesh and strength were greatly increased, and he now has a younger look than when he laid aside his narcotic."

April, 1834.

The case of Mr. L. B., a shoemaker, now about fifty-two years of age, exhibits strikingly the injurious effects of tobacco. About fourteen years ago, he consulted me on account of dyspepsia, obstinate cos-

tiveness, and palpitation of the heart, which symptoms had existed for several years. The palpitation he had observed about seven years before. In a small degree it occurred almost daily. For years a slight fluttering was generally felt, in the morning, for a short time after breakfast, which compelled him to sit still, avoiding mental as well as muscular exertion. After an hour or more, he was better. He was, besides, subject to severe paroxysms of palpitation, occurring at irregular periods. Six or seven of these took place in a year. These turns were excited under stomach irritations or oppression from indigestible food. They came on instantaneously, and often left in a moment; 'the pulse was nothing but a flutter.' So great was the prostration, that, during the paroxysm, he was obliged to lie still upon the bed. The length of the paroxysm was various; sometimes an hour, sometimes several hours.

He was in the habit of using tobacco in all its forms of cud, cigar and snuff; he drank tea and coffee freely, and spirit and cider moderately. I advised him to the entire disuse of tobacco, tea, coffee, and all other drinks, save water, and to live on plain and unstimulating food. He followed the advice in regard to drinks, in so far as to confine himself to water, and threw away the cud and cigar, but continued to take snuff. Under this change his health was improved, and the turns of palpitation were less frequent, and generally less severe. Two years after-

wards, he abandoned flesh meat as an article of diet, and still indulged himself in the habit of snuff-taking. In this way he continued for about six years, his general health being considerably improved; he was subject, however, to an occasional attack of palpitation. At length he had a paroxysm, which was so terribly severe and protracted, as to keep him nine hours and an half motionless upon his back, under the incessant apprehension of immediate dissolution. In the course of this nine and an half hours he made up his mind to take no more snuff. He has kept his resolution, and has not had an attack since, now about six years. He says he has sometimes felt a slight agitation or tremor, but this has been rare. He continues to exclude flesh meat from his diet. His breakfast consists of roasted potatoes and toasted bread, with a little butter; his dinner, bread and milk; supper, the same as the breakfast. His only drink is water. Once his fingers were tremulous, now they are perfectly steady; and his memory, which was alarmingly impaired, is very much improved.

A physician, with whom I was intimately acquainted, during the greater part of his medical pupilage, which included the latter part of his tobacco experience, has given the following account of his own case. He has a preference for withholding his name from the public, and has described himself as 'the patient.' The circumstances of the case as related, may be

relied on. I was present each time when he threw away his tobacco.

"The patient," says he, "at the early age of fourteen, under the impression that it was a manly habit, commenced chewing tobacco; and a long and painful course of training was required before the stomach could be brought to retain it. At length the natural aversion of this organ to the poison was so overcome, that an exceedingly large quantity might be taken without producing nausea. For several years the patient continued its uninterrupted use, swallowing all the secretions of the mouth saturated with this baneful narcotic, without experiencing much disturbance of health. At length he began to be harassed with heart-burn, attended with copious eructations of an intensely acid fluid, together with other indications of dyspepsia. A watery stomach was suspected, and smoking was at once recommended in addition to chewing, to alleviate the accumulation of water in the stomach and to assist digestion. Smoking was accordingly practised after every meal, with little alleviation of the difficulty. The patient, however, being determined to be benefited by its use, resorted to it more frequently, smoking not only after eating, but several times between meals. Yet to his great surprise, his troublesome symptoms were gradually augmented, notwithstanding his strenuous adherence to the practice.

"To the heart-burn and acid eructations, soon succeeded nausea, loss of appetite, a gnawing sensation in the stomach, when empty, a sense of constriction in the throat, dryness in the mouth and fauces, thickening or huskiness of the voice, costiveness, paleness of the countenance, languor, emaciation, aversion to exercise, lowness of spirits, palpitations, disturbed sleep; in short, all the symptoms which characterize dyspepsia of the worst stamp. He was well nigh unfitted for any kind of business, and his very existence began to be miserably burdensome.

"At last, being advised to abandon the use of tobacco in all its forms, and being fully persuaded that he either must relinquish it voluntarily, or that death would soon compel him to do it, 'he summoned all his resolution for the fearful exigency, and after a long and desperate struggle, obtained the victory.'
'All the inconvenience' he experienced, 'was a few sleepless nights, and an incessant hankering after the accustomed fascinating influence of the cigar and cud.'

"In a few days a manifest improvement in health was apparent, his appetite and strength returned, his sleep became more sound and refreshing, and he directly found himself in the enjoyment of better health than he had possessed at any time, during ten years of vile submission to a depraved and unnatural appetite.

"After abstaining from it about two months, he

again, by way of experiment, returned to the cud, cigar, and pipe; and but a few days were requisite to recall all his former dyspeptic symptoms. He again relinquished the habit, under the full conviction that tobacco was the sole cause of his illness, and he firmly resolved never to make further use of it."

After recovering a second time from the effects of his poison, this gentleman assured me that, at times, his feelings had bordered on those of mental derangement; he thought every body hated him; and he in turn hated every body. He had often, after lying awake for several hours in the night, under the most distressing forebodings, arisen, smoked his pipe to procure a temporary alleviation of his sufferings, in fitful and half delirious slumbers. He even thought of suicide, but was deterred by the dread of an hereafter. In a few weeks after relinquishing the indulgence, all these feelings were gone; and when I last saw him, about two years, I believe, after quitting his tobacco, he was in fine health and spirits.

The following letter from Dr. Moore describes his own case.

" Wells, (Me.) April 10, 1833.

" DEAR SIR,-

"It was not until this late hour, that I received your letter of the 4th inst. With pleasure I

hasten to answer your inquiries with regard to my experience in the use of tobacco.

"In the autumn of 1817, I commenced (I know not why) the use of tobacco. It was not until the spring of 1825, that I experienced any ill effects from it, except now and then, heart-burn, acid eructations, and occasional fits of melancholy. At that time I became dyspeptic. My food gave me much uneasiness; I had a sinking sensation at the pit of the stomach, wandering pains about the limbs, especially by night, disturbed sleep, loss of appetite, great difficulty of breathing from slight exercise, debility, emaciation, depression of spirits. Such have been my symptoms and feelings the last seven years; and in that time I have had two attacks of hæmoptysis, [spitting of blood,] which I attribute solely to the relaxing effects of this narcotic.

"The various remedies for dyspepsia were all tried in my case without the least benefit. About the first of December last, I gave up the use of tobacco, and to my astonishment, within the first twenty-four hours, my appetite returned; food gave no uneasiness and strength returned. I have been generally gaining flesh, so that now my weight is greater than it ever was except once.

"I never was in the habit of using more than half an ounce of tobacco a day. This would be but a moderate allowance for most persons, who use the cud. I never was a smoker; my use of it was wholly confined to chewing.

- "A gentleman called a few weeks ago to consult me. His countenance was pallid and ghastly. He said that he had no appetite, was extremely debilitated, had palpitation of the heart, and copious perspiration on slight exercise, wakefulness by night, and was gloomy. Sir, said I, do you use tobacco? 'I do.' How much on an average daily? 'One fig.' I told him he must renounce its use, which he promised to do. He took no medicine. I saw him again in ten days. He said he was well and was fully satisfied that his complaints were owing to the use of tobacco.
- "A friend of mine in this town, who has made a constant use of tobacco, by chewing for more than thirty years of his life, was prevailed upon, a few months ago to lay it aside, in consequence of having constant vertigo, [dizziness]; he is now well, and all who knew him are astonished to witness the increase of his flesh, since he desisted from its use.
 - "I can now count ten persons who were in a feeble state of health, and who have renounced to-bacco by my advice, most of whom were troubled with nervous diseases and dyspepsia. They have all acquired better health.
 - "You are at liberty to make what use of these remarks you please, and I will vouch for the truth of them.

"Your obedient servant,

"E. G. MOORE.

[&]quot; PROF. MUSSEY."

Dr. Moore's case is peculiarly interesting, inasmuch as for some years he was regarded by many of his friends, as near a fatal consumption. In the February preceding the date of his letter, I met him in a stage-coach, and was struck with his healthful appearance, and interested with the account of his restoration. The following letter from the same gentleman confirms the views contained in his first communication.

" Wells, May 7, 1836.

" DEAR SIR,-

"Yours of the 3d inst. has just been received; and in answer to your inquiry I have to say, that my health is better than when I last saw you in 1833; although, since that time I have been afflicted with all my former unpleasant symptoms, viz. loss of appetite, debility, tremors, dizziness, palpitations of the heart, anxiety of mind, melancholy, &c. &c.

"You may ask what could be the cause of all these unpleasant sensations. I will tell you. It was returning to the gratification of a depraved appetite in the use of tobacco; and I have no hesitancy in declaring it as my opinion, that could the causes of the many acts of suicide, committed in the United States, be investigated, it would be found, that many instances were owing to the effects of tobacco upon the nervous system.

"It is now nearly two years since I have had any thing to do with this enemy of the human race, and my health has never been better. I have a good appetite for food. My dyspeptic affection troubles me so little, that I hardly think of it. I never weighed so much before by several pounds.

"One of the persons of whom I wrote before, is still in this vicinity, and uses no tobacco; he enjoys uninterrupted health. The others do not now reside in this place.

" Yours,

"E. G. Moore."

It is presumed that, henceforward, Dr. Moore will retain so little doubt as to the effects of tobacco, as to avoid making further experiments with it upon his own constitution.

Jonathan Cummings, Esq., an intelligent farmer, now living in Plymouth, N. H., in a letter to Dr. Chadbourne, about three years ago, says that he was accustomed to manual labor from childhood, and enjoyed almost uninterrupted health, till he was twenty-five years old, about which time he commenced chewing and smoking tobacco; having for some time taken snuff for weakness of his eyes. His stomach soon became affected, he had faintings and tremblings, and was unable to perform the labor he had been accustomed to do. "I went on in this way," says he, "for thirty years; tobacco seemed to be my

only comfort; I thought that I could not live without it.

"Two years ago, finding my strength still more rapidly declining, I determined to be a slave to my appetites no longer, and I discontinued the use of tobacco in every form. The trial was a severe one, but the immediate improvement in my general health richly paid me for all I suffered. My appetite has returned, my food nourishes me, and after thirty successive years of debility, I have become strong.

"My weight, during the time I used tobacco, varied from 130 to 140 pounds, but never exceeded 150; I now weigh over 180 and am a vigorous old man. I am in a great measure, free from those stomach and liver complaints, which followed me for thirty years. I do more work than I did fifteen years ago, and use none of what you Doctors call artificial stimulants; for I have more recently reformed as to tea, which I had drank, at least twice a day, for forty-five years. It is useless, therefore, for folks to tell me that it won't do to break off old habits; I know, for I have tried it."

In an estimate of the expenses, incurred by what he calls his bad habits, he puts his tobacco only at two dollars a year, (which he says, is much below its actual cost,) his snuff at one dollar, and his tea at four dollars. At annual interest he computes that the amount would be \$615; "not reckoning loss of time and, now and then, a Doctor's bill any thing."

"A pretty little sum," says he, "for one in my circumstances, having always been pressed for money."

In a letter I received from him about a year ago, he remarks, that, among the symptoms of ill health, while he used tobacco, were "a hollow, faint feeling at the stomach, want of appetite, and sometimes severe spasms at the stomach. All the time I used tobacco my complaint was supposed to be liver complaint, and I took medicine for it. I was troubled with my food lying in my stomach, for hours after eating; frequently I took rhubarb and salæratus, to help digestion; when the weight passed off, it left my stomach debilitated and full of pain, and I then took my pipe to relieve it." There were frequent seasons when he was obliged to quit labor, although this was his whole dependence for a living.

Some additional particulars I recently obtained, viz. in April, 1836, in a personal conversation with Mr. Cummings. He remarked, that he continued to take a little snuff for about four months after discontinuing smoking and chewing. "While in the habit of smoking," said he, "there was a hollow place in my stomach large enough to hold my two fists, which nothing could fill; food would not do it; drink would not do it; nothing but tobacco smoke." After quitting the tobacco "the hollow place was gradually filled up;" the appetite increased, food digested better, and all the unpleasant symptoms were removed in about a month after the entire disuse of the snuff.

He observed to me that he never in his life used tobacco to excess, but always "temperately"; although he admitted, the employing it in three forms might have been equivalent to a rather free use of it in one mode. The effects of tobacco on the senses of seeing and hearing, in his case were very striking. He used spectacles for several years, during his indulgence in tobacco, and he assured me that at the age of fifty-five years, he could not read a word in any common book, even in the strongest sunshine, without spectacles. He had also a ringing and deafness in both ears for ten years, and at times the right ear was entirely deaf. During the last year of his tobacco life this difficulty very perceptibly increased. "In about a month," said he, "after quitting tobacco in its last form, that is, snuff, my head cleared out, and I have never had a particle of the complaint since; not the least ringing, nor the least deafness." And it was not many months before he could dispense with his spectacles, and "from that time to the present," says he, "I have been able, without spectacles, to read very conveniently and to keep my minutes, having been a good deal engaged in surveying lands." He remarked, however, that when compelled to employ his eyes upon a book for some hours in succession, especially at evening, he found his spectacles convenient. He certainly hears quick, and his eye is altogether keener and stronger than usual with men of his age. He is now in his sixty-third year.

That the defective vision and hearing were owing, in a great degree, to the tobacco, must be inferred from the fact of his food and drinks having been nearly the same, before and since quitting that article, with the exception of tea, which, as he drank it twice a day for many years, may doubtless claim a share in the mischief done to the organs of the senses. Said he, "I never lived high, my food was always plain, and I cat now the same things I did formerly." For organs so enfeebled as his, and for so long a time, to regain their powers to so great an extent, denotes a native energy of constitution, far above the standard of mediocrity.

How can a temperance man use tobacco? With what consistency can he ask his neighbor to abstain from alcohol, on the ground of its being injurious to body and mind, while he indulges himself in the habitual gratification of an appetite, unnatural and pernicious, and holding, in some respects, a strong alliance with that produced by an alcoholic beverage? How long shall the widow's mite, consecrated, under many personal privations, to the great object of doing good to mankind, be perverted to sustain a disgustful and hurtful habit, by the beneficiary of an Education Society?

How long are the sacred altars of God to be polluted with this unhallowed offering, and the garments of the priesthood to remain uncleansed from its defilements? How long shall transgressors be called upon to listen, with a spirit of conviction and repentance, to sermons on the great duties of Christian self-denial, prepared and pronounced under the inspiration of this poison?