

be removed or lessened, it only remains for me to state in conclusion, that while such complicated and various rights and interests in real estate as now exist are permitted to last, it does not seem possible to unite perfect protection to all parties with perfect simplicity or extreme facility of transfer. The present system sacrifices the purchaser and impedes transfers to an unreasonable extent. That proposed by this Report would protect the purchaser at the expense of all other persons, and would shake public confidence in the security of settlements and other derivative interests. I propose a middle course, which would give reasonable security to all parties, and would greatly simplify and facilitate sales, but would not, I admit, make a sale of land as simple as a sale of stock, which is not in my opinion practicable under existing circumstances.

III.—*Some facts which suggest the idea that the desire for Alcoholic Stimulants is not only transmitted by Hereditary Descent, but that it is also felt with increasing force from generation to generation, and thus strongly tends to deteriorate the human race.*—By James Haughton, Esq.

[Read 15th February, 1858.]

Gentlemen,

I purpose in this paper to bring under the notice of the Society rather a novel view of a subject which has, for some years past, engaged a considerable amount of public attention.

There is a deeply important principle in relation to the drinking customs of society, that has not yet received the consideration of the educated classes which it deserves. I refer to that hereditary tendency to a craving appetite for alcoholic stimulants which is transmitted from parent to child, and which facts that do not appear yet to have attracted much attention seem to prove have a greatly accelerated force from generation to generation; thus indicating strongly that if some counteracting tendencies were not, from time to time, brought to bear upon the evil, it would result in the rapid deterioration of our race, both physically and morally. It needs no argument to prove that the use of the poison alcohol has an injurious effect upon the health and the virtue of the people. Some faint attempts have been made by a few writers to prove that this poison, when used in small quantities, may be taken not only without injury, but with advantage by persons in health. But the weight of evidence against this opinion is so overwhelming, it may be considered as having no force in the minds of well-informed men. So far from this spirit being now looked upon as the "water of life," it is pronounced by almost all scientific men to be at war with man's constitution, and in no degree capable of building up a healthy frame, or of supplying the waste which is constantly going on, and which creates a necessity for the daily supply of nutritious food for the sustenance of our bodies. Alcohol has no power to meet this want; on the con-

trary, its presence in our system is cause of such irritation to our various organs, that they are constantly wasting their vital forces to eject it, as none of their functions can be properly or naturally performed during its presence there.

It would be an unpardonable waste of your time to bring forward a lengthened array of medical names, to prove that alcohol is the enemy of health. The most eminent of the profession are to be found bearing testimony to the scientific truth, that it can never be useful except as a medicine; and while we have abundance of such evidence to prove that, in even the smallest quantities, its presence in our bodies is adverse to healthy action, there is hardly a man in the profession to be found bold enough to put on record a contrary opinion.

It is a truth which cannot now be successfully gainsayed, that the almost universal practice of mankind in using alcoholic liquors as common beverages, is a practice opposed to scientific teachings and at war with health. I need only name Foderé, Orfila, Cheyne, Darwin, Crampton, Carmichael, Conquest, Carpenter, Forbes, Macnish, Miller, Todd, and Bowman, names taken at random, in support of this assertion.

No use, however general, can justify a practice so opposed to the laws of our being; any use of alcohol, except as medicine, must be pronounced a violation of those laws, and should, therefore, be discontinued. I need not occupy your time with any proof that deep injury to morals is inflicted by our drinking usages; there are none found to deny this proposition. All admit that language is powerless to describe the sin and misery they create.

Having thus shewn that health and morals are seriously injured by the common use of alcoholic liquors, I proceed to point out to your notice that important principle in relation to the drinking customs of society, which it appears to me has not received the consideration of the educated classes which it deserves. I refer to the increased craving for these poisons, which some facts warrant us in supposing is certainly handed down from parent to child, and which, as it appears to me, when viewed in the light of experience, or of a true knowledge of the facts, affords additional argument for the immediate overthrow of these customs.

I have shown that the use of alcohol is very deteriorating to man, as a physical and moral being. I desire farther to shew that this evil propensity is not only hereditary in its tendency, but that it is highly probable the desire for the stimulant becomes stronger and stronger with every succeeding generation; thus shewing, that if the practice of using it be continued without check, our race must soon become seriously deteriorated. I wish to impress this view of the case strongly on the public mind, from a conviction that a knowledge of the result (supposing that I take a correct view of the case)—that our children must inherit from us with a fiercer craving this destroying taint—would doubtless add to the ranks of temperance reformers every one who was thus instructed in the operations of this law, and who would shrink from the solemn responsibility of transmitting sin and misery, in ever accumulating strength, to his children and his children's children.

It has been long held by medical men that the hereditary transmission of the drunkard's appetite is a natural law. Macnish sustains this view in his "Anatomy of Drunkenness;" and Darwin held the same opinion; he says, "It is remarkable that all the diseases from spirituous and fermented liquors are liable to become hereditary, even to the third generation; gradually increasing, if the cause be continued, till the family becomes extinct."

So long since as 1743, a Bill was introduced into the House of Lords for altering the duties on spirits, on which occasion Lord Harvey and Lord Lonsdale spoke forcibly against their use. I quote a sentence from each: "If the use of spirituous liquors be encouraged, the diligence of the lower classes, which can only be supported by health, will languish." "Those women who riot in this poisonous debauchery are quickly disabled from bearing children, or, what is yet more destructive to general happiness, produce children diseased from their birth by the vices of their parents; children whose blood is tainted with inveterate and accumulated maladies; and who must be supported through a miserable life by that labour which they cannot share, and must be protected by that community of which they cannot contribute to the defence."

These opinions might be multiplied to any extent, and that statistics prove their perfect soundness is illustrated by the following table taken from Morewood's "History of Inebriating Liquors."

Whiskey manufactured in Ireland in			
1723	...	...	133,733 gallons.
1730	...	...	134,748 "
1740	...	...	239,811 "
1750	...	...	508,546 "
1760	...	...	225,217 "
1770	...	...	801,174 "
1780	...	...	1,229,416 "
1790	...	...	2,926,795 "
1800	...	...	3,621,498 "
1810	...	...	6,412,625 "
1820	...	...	4,636,192 "
1830	...	...	9,208,538 "
1837	...	...	11,809,603 "

Each decennial period in this table, with one exception, shews a large and regular increase of consumption.

Thus we see that during the last century, when the population increased only about four-fold, the consumption of whiskey, governed it would seem by this law to which I am directing your attention, increased in an enormously greater ratio.

I fear we must admit that pauperism, crime, and demoralization kept pace with this growing evil.

Just about the close of this period, the Temperance Reformation interposed between us and our foe. In the course of a few years, the labours of the late Father Mathew, assisted by the enthusiasm of an awakened people, reduced the consumption of whiskey in Ireland one-half; and the records of the day prove that crime was greatly lessened in consequence. Our late Lord Lieutenant (then

Lord Morpeth) bore testimony to this beneficial change in the habits of our people, in his place in the House of Commons.

Up to the present period, (although the enthusiasm in favour of Teetotalism is much abated) the wonderful change then effected in the habits of the Irish people has been productive of the best results. Yet within the last ten or eleven years the consumption of this poison by our people has been again on the increase, and the law of transmission adverse to our health and happiness is once more in operation, as is proved by the following Excise returns:—

Population of Ireland in 1821, 6,780,826; spirits consumed, 3,340,472 gallons.

Our population in the year 1841 was 8,175,238; the consumption of spirits that year was 6,515,781 gallons. In the following year it reached the lowest point, and was only 5,320,696 gallons, at about which quantity it continued the two following years. From 1844 to 1850 there was a sensible increase of consumption, by a largely diminished population. The Census of 1851 showed that our people only numbered 6,515,794, and they consumed 7,753,017 gallons of spirits, (more than double the consumption of the same population in 1821.)

	Gallons.
In 1852 the consumption was	8,419,656.
In 1853 " "	8,348,367.
In 1854 " "	8,613,785.
In 1855 " "	6,367,946.
In 1856 " "	6,936,938.

The lessened consumption in the two last years is a gratifying fact; and if it be permanent, would prove that the good seed sown by Father Mathew was struggling to overcome the tares by which its growth was impeded; and would also be some evidence that the law to which I have been referring is not unvarying in its operation. But as I learn on all hands that our brewers and distillers have been very busy the last twelve months, I am apprehensive that the returns for 1857 (which we may expect now in a few weeks) will exhibit less favourable results.*

In Scotland I find the same rule to prevail. In 1821, her population of 2,093,456 consumed 2,558,285 gallons of spirits. In 1856, with a population of probably three millions, the consumption rose to 7,402,643 gallons.

In England similar results take place. Her population in 1821 was 11,978,875, and they consumed 7,261,581 gallons of spirits. In 1856, with a population of probably twenty millions, her consumption was 13,964,284 gallons. Her annual consumption of ale and beer is over 600,000,000 gallons.

The above figures extend over a period of thirty-five years. If the period of fifteen years, ending in 1850, were taken, a more favourable result would be arrived at. But the Temperance Reforma-

* They have since appeared, and exhibit about the same consumption of whiskey as in 1857.

tion in Ireland would account for a large proportion of the lessened quantity of spirits taken for home consumption within that time. There does not appear to be any alteration of consequence in England or Scotland, where the population had increased a little. It is a gratifying fact, that a large increase took place in the United Kingdom in the consumption of coffee, tea, and cocoa, during this period. It amounted to nearly 27,000,000 of lbs.; which appears to have been taken by the people instead of ale and beer, of which there was a decreased consumption of about 40,000,000 gallons.

We thus witness in the United Kingdom, over a considerable period of time, a steady result, generally unvarying in its progress; that is, shewing an increase year by year, (with some reductions in Ireland and Scotland, from 1840 to 1845) which seems to indicate the existence of a law of accelerated progression in the use of alcoholic stimulants; analogous to the law of gravitation, which makes bodies fall with continually increasing velocity; this law, in relation to my subject, inclines, I doubt not, generation after generation to indulge more freely than their predecessors in the use of alcoholic poisons. It is a well-known fact, that the individual who feels a desire for these stimulants requires from time to time a larger dose, to produce the desired result; so that there is nothing contrary to probability, or to the teachings of experience, reasoning from known facts, in the supposition that parents transmit to their children an appetite which requires larger quantities of the poison to allay its cravings in their system.

That similar results flow from like causes in many other lands is, I doubt not, capable of demonstration. And I feel assured that if medical writers had their attention specially directed to this branch of enquiry, which comes peculiarly within their province, we should soon have accumulated such a body of evidence in proof of the progressive deleterious effects of alcohol on the human race, as would force on all intelligent men the conviction, that the time has arrived for confining this destroyer to medicinal, manufacturing, and artistic uses. Reason is a gift of no value, when we allow appetite to over-ride it, and lead us to destruction.

I find in a Manchester paper, *The Alliance Weekly News*, under date 23rd January last, some interesting comments in relation to my subject, from a review of three treatises in the current number of the *British and Foreign Medico-Chirurgical Review, or Quarterly Journal of Practical Medicine and Surgery*, to which I would direct your attention. They are strongly corroborative of the views I am now anxious to impress on your minds, and I am thus anxious, because I believe it is impossible to effect any permanent improvement in the condition of the masses, in our own or in other civilized countries, until ripened intelligence shall banish alcoholic liquors as articles of common use.

The treatises above referred to are, "Physical, Intellectual, and Moral Degenerations of the Human Race, by Dr. B. A. Morel;" "On the Transmission from Parent to Offspring of some Forms of Disease, and of Morbid Taints and Tendencies, by James Whitehead, M. D.;" "The Races of Man, a Fragment, by Robert Knox, M. D."

These writers appear to sustain to a great extent the theory of this paper. I give a few extracts from the review, of the works reviewed, to shew the bent of their opinions on the matter I have under consideration:—

“ We shall now proceed to notice some of the above alleged causes of ‘ degeneration ’ in detail. The first we shall touch upon is *alcoholism*, which, important as it is, forms a subject far too extensive to allow us to enter into anything like an analysis of the effects of alcoholic poisoning on the frame, whether such poisoning be of an acute or chronic character.

“ To the statements that one of the most wide-spread habits is the *habitual use of alcoholic fluids* ; that such appears to constitute one of the most common causes both of physical and psychical disorder ; that much of the anxiety and crime men suffer is due to this lamentable propensity ; and that what is so detrimental to the individual must become so to the race,—few, we suspect, will be found to demur.

“ That state of most extreme degradation of the living body which can be witnessed, viz. general paralysis, is markedly a result of continued addiction to the use of large quantities of spirituous liquors.

“ We have made, as it will have been seen, two distinct classes of persons degenerated in consequence of alcoholic excesses. One class arrives at length, by a series of well-marked nervous lesions, physical and intellectual, at general paralysis. The other, although profoundly affected as regards innervation, remains stationary at a point, leading a miserable existence, characterised physically by a special condition of cachexia and marasmus, morally by a manifestation of the worst tendencies and of the lowest brutishness.

“ It is easy to conceive how such serious effects, arising in the individual from the abuse of alcohol, should influence the procreative faculty, first, diminishing the vital standard of the offspring ; and, secondly, annihilating the generative power altogether. These results, coupled with the social and moral aberrations ensuing from the bad example, misery, and want introduced into the bosoms of families by those addicted to the crime of drunkenness, are ample causes of the degradation of masses of the human race ; and so often engender those morbid temperaments whose types are to be found in the generations succeeding those who have been so cruelly tested. The idea of a special intoxication cannot in the present day be dissociated from our view of such epidemic influences.

“ The most active causes of the degeneracy of the human race are those which directly and repeatedly influencing the brain, give rise to special conditions, periodically placing those who are addicted to the use of an intoxicating agent under the conditions of temporary insanity.

“ Dr. Whitehead places intemperate habits as first among the causes of insanity in this country, and observes in respect to them:—
‘ Dr. Cox remarks that nothing is more common than to see the

offspring of an intemperate man become demented. Dr. Adams also expresses a similar opinion. I shall, therefore,' says the author, 'offer only one remark on this subject—viz. that women who are habitual drunkards generally produce immature or idiot children.'

"Scrofulous affections or a tendency thereto may be acquired in various ways, of which one of the most common is intemperance.

"We shall now leave the circle of the individual and his family, and look to the effects arising *au sein des grandes agglomerations constituant les peuples et les races*. Following this branch of the subject, the author appeals to the effects produced upon the population of Sweden in particular, as detailed in the investigations of Dr. Magnus Huss. At Erkistuna in Sweden the vice of spirit-drinking is very marked. Here the mortality is at the rate of three per cent. or one in *thirty-three*, whilst in Jamtland, a province noted for the sobriety of the people, it is only *one in eighty*. Insanity, suicide, and crime are all, according to Huss, on the increase in Sweden. In fact, to use this writer's expression—

"Things have arrived at such a pass, that if energetic measures are not had recourse to, the Swedish nation is threatened with incalculable evils; . . . it is an indisputable fact, that already, in respect of physical power and stature, the people have degenerated from their ancestors.

"Leaving Sweden, M. Morel refers to the United States as another country in which infinite danger threatens the population from the wide-spread vice we are discussing. He states that before the practice had attained the extent it now has, from 40,000 to 50,000 persons were killed annually from 'strong liquors.' Great Britain unhappily furnishes also a very prominent instance of a country whose inhabitants consume large quantities of fermented fluids. In great towns in England gin and other spirits are used enormously, *i. e.* at the rate of two and one-third gallons to each adult male; whilst in country districts beer of greater or less strength or 'headiness' is chiefly employed. In Ireland and in Scotland whiskey is consumed everywhere, and this at the rate of three and a-half gallons in Ireland, and of eleven one-sixth gallons in Scotland, to each adult male.

"It was remarked, in a former article in this journal, that the minister of a Highland parish informed the author that he could point to some six or eight individuals, who, though seldom or never seen to be drunk, severally consumed from half a gallon to a gallon of spirits weekly, or from twenty-six to fifty-two gallons each in the course of the year. In some districts of France, as in Alsace, for instance, addiction to spirit-drinking is extreme. M. Danis states that both sexes and all ages are equally addicted to this custom; and when on Sunday the people of the Vosges districts are congregated in church, the place is literally poisoned by the odour of potato brandy! 'Can we be astonished,' says M. Danis, 'that the issue of such parents come into the world imbecile and idiotic?' In Prussia, according to Dr. M'Culloch, the consumption of spirits is equal to between forty and forty-five millions of our imperial gal-

lons in the year. M. Morel alludes to the great tendency of 'half-castes,' or mixed races, amongst the South American people, to the use of intoxicating fluids. He finally sums up in the following manner:—

"We have no need of further proof to demonstrate the fact, that the use of toxic inebriating substances gives rise to in the race the same pernicious effects as result to the individual. They have invariably the same character in all latitudes. . . . New maladies are generated, and old ones take on increased fatality; the mean duration of life is lessened; the viability of new-born children gradually less and less to be depended upon; and disturbances of the moral and intellectual nature become at length signalled by the highest rates of insanity, of suicide, and crime."

Dr. Macnish, in his "Anatomy of Drunkenness," under the head "Sterility," has the following remarks: "This is a state to which confirmed drunkards are very subject. From the general defect of vital power in the parental system, their children are apt to be puny, and more than ordinarily liable to inherit all the diseases of those from whom they are sprung; on this account, the chances of long life are much diminished among the children of such parents." And again, "It appears from accurate calculation, that in London only one person in forty attains the age of fourscore; while among the Quakers, whose sobriety is proverbial, and who have long set themselves against the use of ardent spirits, not less than one in ten reaches that age; a most striking difference, and one which carries its own inference along with it." And further, "It (drunkenness) has a more deplorable effect upon posterity than any other practice, for it entails not only bodily disease upon the innocent offspring, but also the more afflicting diseases of the mind. Madness of late years has been greatly on the increase among the lower classes, and can only be referred to the alarming progress of drunkenness, which prevails now to a greater extent among the poor than ever it did at any former period."

Mr. F. G. P. Neison, the eminent and well-known actuary, in his Statistics "On the Rate of Mortality among Persons of Intemperate Habits," has arrived at serious and unexpected results; which, if not directly bearing on the main idea in this paper, shew that death makes frightful havoc among those who are addicted to drunkenness. His enquiries have been extensive and elaborate. Out of 6,111 cases in England and Wales, 357 died; the number which ought to have died being 110.

Upon this Mr. N. remarks, "Throughout the whole range of the Table it will be seen that the rate of mortality is frightfully high, and unequalled by the results of any other series of observations made on any class of the population of this country. At the term of life from twenty-one to thirty the mortality is upwards of five times greater than in the general community." "By an inspection of the figures in Table IV. it will be seen that an intemperate person of the age of twenty has an equal chance of living 15·6 years, while a person of the general population of the country at the same age has an equal chance of living 44·2 years longer."

I must refer to Mr. Neison's interesting paper (in "Contributions to Vital Statistics, 1857," 3rd edition) for more particulars. He concludes it in the following words, "It is hoped that the facts contained in this contribution may throw some light on a question not hitherto investigated statistically; and that while they point out to assurance offices, and other companies trading in pecuniary adventures on life, the perilous nature of such risks when connected with the lives of intemperate persons, and the urgent necessity for a high rate of premium, they will also be not without valuable influence on the social, political, and religious condition of society."

Mr. Neison's enquiries were confined to cases of plainly-marked and continued intemperance. They were not directed to what is termed moderate drinking. I apprehend the latter is much more extensively injurious to life than the former, by keeping alive a constant irritation of the stomach; but the decision of this point must be left to future earnest enquirers.

We learn from Mr. Neison's Tables that *drunkenness* has a deteriorating effect on the human race; and in so far I claim him as a valuable auxiliary to my theory. I believe I am but just taking you over the threshold of a most interesting and a most useful enquiry.

Smollett, in writing of the French people in 1776, says, "It must be owned that all the peasants who have wine for their ordinary drink are of a diminutive size in comparison with those who use milk, or beer, or even water; and it is a common observation that when there is a scarcity of wine, the common people are always more healthy than in these seasons when it abounds. The longer I live, the more I am convinced that wine and all fermented liquors are pernicious to the human constitution, and that for the preservation of health and exhilaration of the spirits, there is no beverage comparable to simple water."

What the actual consumption of alcoholic liquors was in France, in the time of Smollett, I know not, but that it is enormous in the present day, and productive of the usual evil results, is unquestionable. An American gentleman of high character compiled the following statistics in or about the year 1855:—"Strong drinks annually consumed in France, 1,053,797,854 gallons, being $42\frac{1}{2}$ gallons per head of the population, or equal to $4\frac{1}{2}$ gallons of neat alcohol to each. The consumption in London being $3\frac{1}{2}$ gallons; in Prussia, 1 1-16th gallons; in the United States 1 5-8th gallons."

An erroneous opinion prevails in these countries, that because France is a wine-producing country, the desire for alcoholic stimulants there is less than with us. The fact is the reverse. France is, perhaps, the most drunken country in Europe, except Sweden.

Since I commenced this paper I have unexpectedly discovered that I have introduced to your notice a subject—I will not say even more important than I had previously considered it to be, but which has attracted more scientific inquiry than I was aware of. I have already referred to Dr. Morel's opinions; but I have since found that they are more decided, and even more worthy of your most earnest investigation than I was before led to believe, deeply

impressed as I was with their great importance. I approached the question which I have brought before the Society with considerable hesitation. I now feel more confident of its value, sustained as I am, almost to the full extent of my theory, by the opinions of Dr. Morel, Dr. Huss, and other names of high eminence.

I have derived these more decided convictions on the subject of my paper, from my attention having been drawn by a friend to another review of Dr. Morel's work, entitled, "Traite des Humains Dégénérences, Physiques, Intellectuelles, et Morales, de l'Espece, et causes qui produisent ces variétés malades," in the *Journal of Psychological Medicine and Mental Pathology*, April, 1857. As Dr. Morel's work has been favourably noticed in two medical journals of the highest repute in England, you will need no further evidence of its value in a scientific and moral point of view.

Alcoholic poisoning occupies a large share of his attention in the essay to which I have referred. He says that the "numbers of the insane are on the increase, and the chances of cure are lessened;" that "alcohol produces a malady presenting the symptoms of true poisoning, and one of a specific character;" that "out of 1,000 cases of paralysis, the details of which I have collected, there are 200 in which no other cause existed;" and, further, that "I have never seen invalids cured whose propensity to alcoholic stimulants had their origin in a predisposition inherited from their parents."

The reviewer says:—

"M. Morel concludes his extended notice of alcoholic poisoning, by remarking upon the constant increase throughout Europe of this particular cause of degeneration. He says—

"These predispositions have not constantly existed in all preceding generations, but have been acquired by some part of the ancestry, and handed down to the descendants; the morbid taint becoming more and more pronounced in every generation.

"The abuse of alcoholic liquors in Sweden appears to have begun in the last century. In 1785, Dr. Hagstrom, struck with the growing evil, made an energetic appeal to his fellow-citizens; and Dr. Magnus Huss writes:—'The danger is not future and contingent; it is a *present* evil, the ravages of which may be studied in the present generation. No measures *can be too strong*; it is better to save at any price, than to have it to say *it is too late!*'"

Liverpool, Manchester, Wolverhampton, and many other towns are passed in review, with statistical details of a frightful nature.

Gentlemen, I trust these quotations will induce you to seek a more intimate acquaintance with the writer.

Dr. Morel speaks of many causes of human degeneration besides alcoholic poisoning, and he concludes in the following noble words:—

"The plan which I have adopted is vast; but I am determined to pursue it to the end. The confidence which sustains me does not arise from any exaggerated idea of my own strength, but from a lively and profound faith which strengthens me. I believe that the study of the causes of degeneration, and of their treatment, is one of the most important, useful, and suggestive that can occupy

the mind of a physician; and that it is the duty of each, according to his power and ability, to aid in preventing the generalization of the evils pointed out; and thus to have ever before him, as the programme of his labours, the *intellectual, moral, and physical amelioration of man*, or (if the term be preferred) HIS REGENERATION."

I feel that it would indeed be unphilosophical to attribute any degeneracy which may take place in the human race to a single cause. Many causes no doubt conspire in producing this sad result wherever it arises; and as alcohol is unquestionably one of these causes, I invite you to unite your efforts with those who are endeavouring to banish from our country this foe of our happiness.

I cannot conclude this paper without a short reference to a point which appears to me of cardinal importance, in relation to our drinking usages.

Most writers on our intemperate habits, whether medical or non-medical, dwell upon *drunkenness* as the great evil arising from them, leaving it to be inferred that moderate drinking does no harm. This appears to me a serious mistake in consideration of the question. It is semi-intoxication which does all the mischief. The drunken man is harmless. The man who has his brain disturbed by the fumes of alcohol is dangerous, for his reasoning powers have lost their balance. Then the ship-captain hurries his vessel and all on board to ruin; and the railway-driver rushes on madly, to the sure destruction of life and property. In all such cases it is intemperance, not drunkenness, which does the mischief we are seeking to remedy.

Touching the evils which moderate drinking inflicts on healthy action, I need but quote the following passage from a late work by Professor E. L. Youmans of America:—"All alcoholic liquors, when drunk, pass into the stomach as a matter of necessity, but they do not long remain in this organ, for their presence there would speedily and utterly arrest the digestive process."

"It is a remarkable fact," says Dr. Dundas Thompson, "that alcohol, when added to the digestive fluid, produces a white precipitate, so that the fluid is no longer capable of digesting animal or vegetable matter." This precipitation is the coagulation of the *pepsin*, an essential element of the gastric juice.

Those distinguished physiologists, Todd and Bowman, in their late work, say:—"The use of alcoholic stimulants also retards digestion by coagulating the *pepsin*, and thereby interfering with its action. Were it not that wine and spirits are rapidly absorbed, the introduction of these into the stomach, *in any quantity*, would be a complete bar to the digestion of the food."

It is thus shown by these writers, that even in the most moderate quantities alcohol deranges the healthy action of the stomach; and it is well known that this poison quickly affects the brain, and thus deprives man of that full command of his mental powers without which he cannot effectively perform his duties in life.

The chief subject which I have brought under the notice of the Society in this paper may be considered a novel one. I have not seen it treated by any other writer; and as I make no pretension

to any extensive or accurate scientific knowledge, I simply lay these statements and statistics before you for your consideration. To me they seem to justify the conclusions at which I have arrived, that intemperate habits are not merely hereditary, but that the craving for alcoholic stimulants becomes stronger and stronger every succeeding generation, and must ultimately prove very deteriorating, if counteracting causes do not arise to stay their baneful influences. The Temperance Reformation, during the last thirty years, has done much to preserve our race from the bad results of the accumulating force of this injury.

Few will attempt to question that the disease, Intemperance, is hereditary. The wisest men in ancient and modern times have sustained that opinion ; in support of it I could bring forward any amount of testimony. That it goes onward from generation to generation with increasing force, is a proposition not strongly supported (so far as I know) by any great authorities ; but, except on this supposition, I do not see how we can satisfactorily account for the constantly increasing consumption of the stimulant. Dr. Morell, and a few others, appear strongly to sustain this view of the case.

My object will be attained if I shall have awakened this new idea in any of your minds, so that it may lead to a further and more searching investigation of this important question. For surely it will be considered by all a matter of no light importance, to ascertain whether, in indulging our propensity for alcoholic stimulants, we may not be handing down to our children the seeds of a fierce desire, which will, almost of necessity, hurry them into a career of vice and crime, and cause them to transmit to their successors, in accumulating force, those influences which lead to a rapid deterioration of our race.

IV.—*On the Tenures and Taxation of India.*—By Joseph J. Murphy, Esq.

[Read Monday, 15th March, 1858.]

It is an established truth of political economy, that the interest of the entire community requires land to become private property, and to be as nearly as possible assimilated to chattels in the facility with which it can be bought, sold, pledged, and bequeathed.

But the simplest truths are often the latest to be discovered, and this one does not appear to have been recognized by any primitive nation. Regarding land as a grant from the state, they attached conditions to its possession which hindered the operation of the commercial principle.

Those nations whose social organization was democratic, on their first settlement divided the land among their members in properties, free of all charge or service, except what was due by every citizen ; but the power to sell or mortgage was not always conferred,