inquiry amongst the old petty officers, varies from half a pound to three pounds a month, or from a quarter of an ounce to an ounce and a half daily, yet all I have asked, "Has smoking done you any harm?" have given a similar answer, "The use of tobacco has done me no harm, but much good."

I have often seen occasions when, the ship's company having dined at noon, had their frugal supper of biscuit and tea at half-past four, and been kept on deck at work in cold blowing weather till eight or nine o'clock, the judicious indulgence of a half-hour's smoking has dissipated all their fatigue, their growlings, and discontent, and they turned into their hammocks content, if not happy; whereas, if they had not been allowed this dose of the soothing, fragrant weed, I verily believe many of them would have been fit subjects for the sick-list on the following morning.

It is a popular opinion amongst sailors that tobacco-smoke is a disinfectant in fevers, cholera, and other epidemics on board ship. I need hardly say this is erroneous, but I believe the use of tobacco soothes the system, like other sedatives, and renders it more able to resist the influence of disease on these occasions.

I believe, then, that the use of tobacco, as at present indulged in by the seamen in the Royal Navy, instead of being injurious, is at times positively beneficial; that in the majority of officers of adult age, where exercise in the open air is taken, it does no harm; but I perfectly agree with Mr. Solly, that in the young, the over-fed, and high livers, and those who do not take exercise, it does harm.

In conclusion, I beg to state I do not smoke myself; that tobacco-smoke is painfully disagreeable to me; but fearing that the opinions expressed against smoking by such eminent men might prejudice the custom of this harmless indulgence in the navy, I have presumed to give the results of my own experience.

I am, Sir, your very obedient servant,

JOHN GALLAGHER, M.D.,

H.M.S. "Cornwallis," Hull, Feb. 1857.

Surgeon R.N.

BENEFITS AND EVILS OF SMOKING.

[LETTER FROM J. R. PRETTY, M.D.]

To the Editor of THE LANCET.

SIR,—I willingly admit the serious physical and moral evils resulting from *excessive* smoking, and that perhaps, on the whole, as with alcoholic drinks, more evil than good results from the use of tobacco. Still it appears to me, in accordance with my experience, that exaggerated statements have been adduced, which can only weaken the truisms advanced by the opponents of tobacco-smoking. Mr. Solly founds an opinion upon personal experience—a very correct way of doing so as regards *himself*. He found it impair his nervous energy, although he only smoked "*occasionally*" during ten years. It, however, will be admitted that other causes exist besides the use of tobacco which will produce the same results. But if we take a more *extended* view, and regard the habits of a *people* who generally and probably too extensively smoke, as the inhabitants of Holland, Germany, and America, we do not find indolence and deficient intellectual power to be the characteristics of the inhabitants of these countries. It may be replied, but look at Turkey? Well, if we do so, can we attribute the want of energy that there exists to smoking? I opine not. We cannot take so narrow a view of things. Rather one would refer it to a faulty education and a debased morality. Hear what our officers say of the Turkish soldier,—that he only wants good treatment and proper discipline to make him thoroughly efficient. Go then to the restless Arab, capable of undergoing great fatigue, and supporting his strength on a frugal diet, which Mr. Solly could probably not endure, although he does not smoke. Were he perhaps in the desert, his good resolutions would fail him, and he would follow the old adage, of doing at Rome as the Romans do. Dr. Pidduck, too, would probably find an Arab who could argumentatively break a lance with him, and scatter at once to the winds—I will not state "*fool's paradise*"—his assertions by demonstrable facts. I consider Mr. Solly's reference to the justly great Napoleon an unfortunate one; for notwithstanding his huge intellectual powers, he possessed well-known infirmities, which had he smoked would have been attributed to it.

Were *moderate* tobacco-smoking so poisonous and injurious

as asserted, the public would long since have discovered this without the aid of our profession. With opium-smoking it is self-evident, in the emaciation and misery it induces; whereas with moderate tobacco-smoking it is a well-known fact that there is ordinarily an increase of weight. Whilst it is admitted that it contains a most poisonous oil, it should be borne in mind that the slow combustion of tobacco (and the smoke not passing beyond the fauces—which it unquestionably relaxes) does not, when moderately used, produce its poisonous effects, except when an idiosyncrasy exists.

We are told by Mr. Solly that it acts "as a slight stimulant to many organs when the system begins to tolerate it;" that it is "a stimulant to the generative system, but the stimulating effect is much earlier followed by its depressing action." Now this statement, which I demur to, appears to me contradictory. Thus, its stimulating effects show themselves "when the first poisonous effect has passed off," which is the *depressing* one; and yet we are told that, as regards the generative system, "the stimulating effect is much earlier followed by its depressing action." I cannot admit that tobacco-smoking produces any stimulating effects whatever, and believe that its depressing effects increase in proportion to the extent of the amount smoked. It is a well-known fact that with many persons, after a time varying in different cases, continuing to smoke will cause a tremor of the hand; an evidence of the excessive use of the tobacco. Still, unquestionably, *tolerance* does in a degree become established. I should say that at first its effects, to those who can bear it, are purely sedative, and which, if unduly prolonged, will produce injurious depression. I do not believe that a moderate sedative effect is ever injurious; yet undoubtedly the depression that may be produced from smoking is decidedly so, and this, as in other matters, must be left to the experience of the party. As a general rule, I should not say that one or two small pipes of a mild tobacco per diem could prove injurious to an habitual smoker. That the depressing effects of tobacco increase with the quantity smoked will be admitted, and this unfortunately is an inducement to add one excess to another by the increase of the quantity of stimulus taken, and which serves to avert it by acting as an antidote.

Mr. Tyrrell remarks "that one of the most common effects of tobacco-smoking is its depressing influence on the sexual powers." I have known this to be a reason why some young men—in whom Dr. Pidduck states smoking "cannot be too severely reprobated"—do smoke when they cannot afford to marry, and are desirous of avoiding fornication, many of this class, it is to be hoped, believing it to be "a deadly sin."

But to take a more general view of the question. Tobacco-smoking calms the irritability of the system, and, as has been before mentioned, it frequently leads to an increase of weight. In such cases, therefore, it does not interfere with nutrition and secretion. These are not sufficiently regarded as vital functions. We artificially stimulate by medicines when deficient secretion, frequently the result of diminished nervous power or tonicity, exists. It may be said tobacco-smoking enervates and depresses. True; still nervous exhaustion from anxiety of mind and the wear and tear of life exhausts more. I have never seen a case of insanity resulting from excessive smoking, but the most incurable forms of this disease that have occurred to me have been in persons very abstemious, and whose nervous system has been irretrievably exhausted, and who have sunk into a state of incurable dementia. Depend upon it, Sir, that the nervous system requires preservation of its powers equally with the vascular and muscular ones. Men who become insane from drink are far more hopeful and curable cases.

Recently, I was consulted by a large manufacturer, who, I found, was very abstemious. He told me that he could not sleep, that he had passed almost sleepless nights for three weeks. I found that he was losing flesh, and was in a very enervated state. He was in no way embarrassed save mentally from prosperity of business and the anxieties attendant on it. I ordered him to smoke a pipe of mild tobacco every night, and take a glass of spirit-and-water. He did so, and from the first night until now he has slept well, and has improved in health and condition. Nothing was more probable than such a state might lead to delirium tremens, and which I have known to occur when stimulants have not been taken. In short, the nervous system may be exhausted from the excitement of life as well as that from drink.

Smoking prevents exhaustion of mind and body. Without going to the officers of her Majesty's service, ask the privates how smoking suited them when they were before Sebastopol. They would tell you that it relieved them from the sufferings

of fatigue. But then it is said it is destructive in typhus. Who doubts it? It should be used to prevent exhaustion, not to cure it; it then comes too late, or at all events is inadmissible. As with medicines, tobacco is a choice of evils: tobacco depresses, but does not the trouble of life still more depress? Yet the sedative effect may, in a *healthy* man, be experienced without any symptoms of depression whatever, provided it be not inordinately used. It will, too, prevent the wearing out of the system, and rest of body and a quiet mind are found to be important means of avoiding phthisis. Tobacco-smoking also is found of great value in the dyspnoea that frequently exists from congestion of the lungs, when the premonitions of phthisis threaten. But it is further adduced that excessive smoking causes great irritability—in fact, that it produces the state that it is intended to relieve. This can be easily understood from its depressing effects when used in excess. Nervous exhaustion from any cause diminishes tonicity, with a proportionate increase of irritability of the system. I once attended a Russian gentleman who smoked the enormous quantity of a pound and a quarter of returns tobacco a week. Instead of diminished nervous energy, he was excitable to a degree. I also knew of a case of a medical man who took one pound and a quarter of Hardham's No. 37 snuff every fortnight, and he did not waste much of it. He used to take about three pinches for each nostril at a time, holding his snuff-box underneath his nose to catch what dropped. I once, too, was called to an almost fatal case of syncope, which lasted more or less for two hours, from smoking only one cigar, I believe for the first time. The patient was a delicate young man, about twenty-five years of age. He had only drunk one glass of ale that day.

It is a remarkable circumstance that smoking is not a practice resulting from civilization, but has been received from our fellow-man in a state of barbarism. I have read that men in a savage state commonly smoke.

I have known tobacco-smoking induce neuralgia, yet it is frequently advised to relieve this disease. This, too, can be easily accounted for. The neuralgia has subsided in these cases on the cessation of smoking. It has been admitted that a pipe or cigar should never be more than half smoked out, as the remaining portion acts as a filter. It would be difficult to offer any excuse for the disgusting short black pipes, which smokers will generally declare to be more mild than new ones. According to our anti-tobacco friends, they ought soon to poison the parties who use them. We see, too, hale old men, who have smoked for years without experiencing any evil result from this practice.

I am, Sir, your obedient servant,
Bayham-terrace, Camden-town, Feb. 1857. J. R. PRETTY, M.D.

EFFECTS ON THE SENSES.

[LETTER FROM F. J. BROWN, M.D.]

To the Editor of THE LANCET.

SIR,—In collecting statistical information relative to the effects of smoking, permit me to suggest to the labourers in this investigation the propriety of arranging facts in a categorical manner,—so as to compare *like with like*.

It is necessary to discover in each instance the amount of tobacco that produces satiety; anything beyond this is intemperance in the use of the plant, or, in other words, the abuse of tobacco.

Next, it should be ascertained what quantity is used in each case, so that it may be known whether one pipe of medium size daily produces evil effects that are ascertainable.

Unless this arrangement be carefully observed, unlike circumstances will be compared together, and the statistics of tobacco-smoking will be worse than useless, for they will mislead. Amongst other questions, it may be well to inquire whether the inhalation of vapour can be compared with the ingestion of solids and of liquids,—whether tobacco-smoking can be considered as an alimentary question, or whether it must be referred to the list of gratifying agents of the senses? If the latter, then it must take its place with music as the gratifying agent of the sense of hearing; with form and colour as the gratifying agents of the sense of sight; with perfumes as similar agents of the sense of smell; with sapid articles as gratifying agents of the sense of taste, and with the gratifying agents of the sense of touch.

Tobacco gratifies two of the outward senses—namely smell and taste; and one inward sense in a pre-eminent degree—

namely, that of Cœnæsthesia or the sense of inward sensation, the sense of comfort. It must therefore be compared with the gratifying agents of the inward senses, such as opium, as well as with the gratifying agents of the outward senses.

The abuse of tobacco disorders the senses upon which it exerts its influence, perhaps in the same way as the abuse of colours injures the sight, perhaps in a different way; it is a question for investigation.

In the case of all sense-gratifying agents the mind is affected through the brain, but it is through different portions of the nervous matter. The reactions upon the body vary with the portion of brain that is affected.

It remains to be proved what effects occur as consequences of the gratification of the senses—first, in a moderate degree; secondly, in an immoderate degree, also the differences in the effects of dissimilar substances used as gratifying agents; and lastly, the difference between the reactions on the body and the mind induced by excitation of one sense and that induced by excitation of any other sense.

The religious view of the question is simple. Food and drink—solid, liquid, and gaseous, of every description, is lawful to a Christian man, with only one exception—namely, blood. The gratification of the senses is forbidden in only one instance—namely, that of the sexual appetite. The gratification of this appetite is restricted to the state of marriage.

In every matter relating to the senses and to the use of food and drink, temperance is enjoined. These things having been premised, the proper object for medical inquiry is the effect of given quantities of tobacco upon man and the lower animals, but especially upon man, because of the great development of his brain, and the necessity experienced by all mankind of resorting to artificial sense-gratifying agents.

I am, Sir, your obedient servant,
Chatham, February 22rd, 1857. FREDERICK J. BROWN, M.D.

SMOKING AMONGST MINERS, NAVVIES, AND WOMEN.

[LETTER FROM WM. M'DONALD, ESQ., SURGEON TO THE GARNEKIRK AND HEATHFIELD WORKS.]

To the Editor of THE LANCET.

SIR,—Having paid some attention to the effects of tobacco-smoking on the system, I have noted down a few observations made over a wide field.

Sailors and navvies smoke more than any other class. The sailor uses from 8 oz. to 16 oz. of tobacco per month; the navvy, 8 oz. or 10 oz.; but part of this is chewed. Bad taste in the mouth, with sometimes an angry, irritable point on the tongue, lips, or fauces, which prevents him from smoking for a few days, are the only bad results I have observed. It does not appear to affect the nervous system of either of these classes. The miner uses above 8 oz. per month. Often breathing an impure air, the tone of his system is lowered, and then tobacco exerts its baneful influence on him. He is subject to dyspeptic, bilious, and nervous attacks, while those who do not smoke are invariably the healthiest.

Now, let the sailor or navvy take to sedentary employment, and in a short time tobacco-smoking begins to affect him as it does the man of sedentary habits. His hand begins to shake, his mouth feels clammy and he has a bad taste in it; he loses to a great extent his fine gustatory sense; his appetite becomes capricious; he feels languid and indolent; his memory becomes confused; he has cardiac disturbance; and spermatorrhœa, with all its evil results, not unfrequently comes on from smoking. A strong constitution may resist it for a few years, but it ultimately gains the victory. It is generally supposed that those who labour in the open air are exempted from its bad effects. This is only the case in certain conditions. They must be well fed. On the labourer with low wages it exerts its baneful influence—first, from its own effects; secondly, from squandering a large portion of that which should go to nourish him, whereby he is still further debilitated.

I may mention a curious fact, not generally known, but which requires only to be tried to be proved—viz., that no smoker can think steadily or continuously on any subject while smoking. He cannot follow out a train of ideas; to do so he must lay aside his pipe.

On woman it takes a sad hold. She soon becomes lazy and indolent, of dirty habits, and makes bad recoveries from her