

*Temperance Department.***The Nicotine in Cigar Smoke.**

Kissling has made some experiments in smoking cigars with an inspirator and drawing the smoke through a cooler and five bottles, the first and third being empty, the second filled with alcohol, the fourth with dilute sulphuric acid, and the fifth with caustic soda. In four experiments 50, 42, 132 and 100 cigars were smoked respectively. The percentage of nicotine was 3.75, 3.75, 0.295, and 0.19. In the fifth experiment the tips and ends of those used in the first experiment were used; and in the sixth the cigar stubs left by a smoker were tested for nicotine, and were found to contain 2.51 per cent., the cigar having had 2.24 per cent., a very slight increase of nicotine.

The general results were as follows:

The active poisonous constituents of tobacco smoke are carbonic oxide, sulphuric acid, prussic acid, the picoline bases, and nicotine. The three first named are present in tobacco smoke in too small quantities and are too volatile to deserve any consideration in judging of the effect of using tobacco on the system. The picoline bases are present in relatively small quantities, so that the poisonous qualities may be attributed almost exclusively to the nicotine. The amount of nicotine in smoke depends chiefly on the nicotine in the tobacco, but the relative amount of nicotine that a cigar gives out in its smoke depends on the size of the unsmoked stump, and stands in an inverse proportion to it.

The quantity of nicotine destroyed by combustion is relatively small.

It must be remembered that, although very little carbonic oxide is sucked into the mouth, a considerable quantity is given out at the other end and inhaled through the nostrils. As nicotine is soluble in alcoholic beverages prevents its local accumulation and hastens its removal from the body. (Rum and tobacco are well known as twins.)

Of a similar nature are the experiments of Dr. Troitzsky upon the influence of tobacco smoking on temperature and pulse. He made some six hundred observations on twenty-five persons, grouped according to constitution. The main result was that tobacco smoking has a stronger influence on the pulse than on the temperature. Taking all the classes of persons together,

the mean temperature on smoking as against non-smoking days, showed an increase of temperature in the ratio of 1,008 to 1,000; while the ratio for pulse was as 1,180 to 1,000.

—*Scientific American.*

A Giant Evil.

The combined devastation of war, famine and pestilence, have never inflicted such deadly blows on our national prosperity, have never exacted such ruinous taxes, have never slain so many of our brave youths and maidens, have never brought no much wretchedness and woe and desolation to our homes, as the single vice of intemperance. It is, indeed, a giant evil, and one which is almost appalling in its combination of forces, alike destructive of present and eternal well-being.

But one of the saddest features of the case is the apathy with which many good men look upon the ravages of this vice. In fact, they altogether refuse to recognize its oft demonstrated enormity, and they will not accept the proof that it is to-day most to be feared in all the land. But there are others whose eyes are opened, and whose ears have been unstopped, and they have hearts to feel, and the question now is, What shall be done to free our nation of this dreadful curse? The remedy is at hand. Train the youth in the principles of total abstinence, labor for the reclamation of the victims of drink, and make and execute laws which will secure the suppression of the sale of intoxicants as a beverage as thoroughly as thieving and robbery are suppressed. To secure these results we must have the prayers of the pious, the labors of the philanthropist, the moral instruction of the Sabbath school, and the votes of all the good.—*Zion's Watchman.*

The Saloon a School.

BY PROF. GEO. E. FOSTER.

The legalized saloon is a school. It must and does teach. The keeper is the master, and the liquors his apparatus. This school is open sixteen hours of the day, and often seven days of the week. Its pupils are the citizens, and its object lessons all but indelible. What does it teach?

That the sale of drink is necessary and useful, for the law protects this as it does every other sale.

That the drinking of liquors is

necessary and useful; for, of course the State would not allow the sale of what was unnecessary and harmful.

That it is right to turn sober

people into tipplers, and tipplers into drunkards, if only in the operation, revenue is made for the State and gain for the proprietors.

That it is right to run establishments which breed idleness, foster vicious habits, prepare criminals, nurse pauperism, and destroy manhood, provided only this waste of the human is coined into golden showers.

That neither God's moral law, nor society's pure interests, are to be counted in the scale against the appetites of the destroyed and the avarice of the destroyers.

That it is only necessary to carry on debauchery by the wholesale in order to gain the sanction of law, and receive the proud name of business enterprise.

For, is it not true, oh, honest citizen, that the saloon system of this country produces more want, causes more idleness, weaves more chains of evil habits, schools more criminals, ruins more homes and slays more precious lives than all other systems of vice put together?

And is it not true that God's law and man's good require that this work of debauchery cease? And is it not also true, that it could not exist for a year against the indignant remonstrances of outraged humanity, but for the golden streams it pours into the coffers of the nation and the pockets of the liquor monopoly?—*Sel.*

Great Men Speak on the Liquor Traffic.

Dr. Lyman Beecher: "I defy any one to show that rum-sellers are not murderers."

The Bishop of Manchester, England: "Beer and wine-shops with vaults are gateways to hell."

John Wesley: "They murder by the wholesale, neither doth their eye pity or spare, and the inheritance of blood is theirs."

Senator Morrill in the United States Senate: "The liquor traffic is the gigantic crime of crimes in this age and particularly in this country."

"Dr. Willard Parker, of New York: "The alcohol is the one evil genius, whether in wine, or ale, or whisky, and is killing the race of man."

John Williams, the martyr missionary of the Pacific Islands: "I

dread the arrival of an American ship, for though she may have more missionaries in her cabin, she brings in her hold the deathwaters of damnation."

Robert Hall, a very sober and eloquent orator, following in Shakespeare's line, said: "It is a liquid fire and distilled damnation;" and in our own day an eminent scientific authority has said: "It is the devil in solution."

Dr. Humphrey, President of Amherst College, 1633: "It is plain to me, as the sun in a clear summer sky, that the license laws of our country constitute one of the main pillars on which the stupendous fabric of intemperance now rests."

Rev. Dr. Prime, of New York: "If these fountains of crime and misery—the liquor saloons—could be shut up or be put under the restraint of existing laws, we might hold a jubilee over the improved condition of our city's poor, and might disband many of our charitable associations."

Rev. Canon Wilberforce: "People talk about regulating the liquor traffic; they might as well try to regulate toothache, when the true remedy is to extract." The advocates of the license law would say: "Tie a stringent rag around the jaw, and leave the affected molar to throb and 'stoon.' Drawing the tooth would savor too much of coercive legislation."

The *London Telegraph*: "It is not poverty, it is beer, that has robbed the children of knowledge, liberty, morality and long life. It is not poverty that fills our hospitals and jails, it is gin. By the time that a child can use his hands, and earn eighteen pence a week, it is offered upon the altar of the great gin god."

The *London Times*: "It is far too favorable a view to treat the money spent on it as if it were cast into the sea. It would have been better if the corn had mill-dewed in the ear. No way so rapid to increase the wealth of nations and the morality of society as to annihilate the manufacture of ardent spirits, consisting as they do of an infinite waste and unmixed evil."

The great Frelinghuysen, a half a century ago, uttered the following sensible sentiment: "If men will engage in this destructive traffic—if men will stoop to degrade their reason, and reap the wages of iniquity, let them no longer have the law book as a pillar, nor quiet