

system as fast as it is taken in, and hence it accumulates in the body, saturating every organ. The benumbed sensibilities of the person thus saturated give no warning of the mischief which is being wrought in his system, and the danger which threatens life as well as health."

Only a short time ago, on May 9th, the press dispatches from Cincinnati, O., announced the death of a man named Cameron, giving the cause as starvation. In the telegram it was stated that he smoked fifty to seventy-five cigarettes a day. This is suggestive of the fact that tobacco is not a food, and none of its ingredients gives support to any part of the body. It does not add to, but subtracts from, the total vital force. In the instance quoted its effect upon the stomach was such that the organ could not retain food of any character. The craving was for the tobacco-poison, and the victim smoked away with great vehemence. But the demon was insatiable; the tobacco-habit was not content with making a slave of its victim, and as it could not support, it killed him. Cameron's sickness and death were due directly to tobacco-smoking. For the quenching of the awful thirst it created, poison flowed instead of water, with the only result that nature could permit.

Why is it that a tobacco user suffering from injury or disease recovers more slowly than one who refrains from stimulants and narcotics? Because, like alcohol, tobacco disturbs the processes of nutrition. It paralyzes the tissue builders, lessening their activity. The delicate organs by which the important processes of life are carried on are hindered in their work, being required to expend much effort in removing from the body the noxious intruder. The germ-destroying cells also are paralyzed, and thus render the body more vulnerable to the attacks of disease germs than when in a normal condition.

Some people have asserted that tobacco is a preventive of disease during malignant epidemics. This was proved long since to be a mistake; and that, on the contrary, the tobacco-habit rendered persons more liable to infections particularly affecting the stomach. The eminent English physician Lizaré says: "During the prevalence of cholera I have had repeated opportunities of observing that individuals addicted to the use of tobacco, especially those who snuff it, are more disposed to attacks of that disease, and generally in its most malignant form." As early as the cholera epidemic of 1849, in Philadelphia, it was shown that smokers were specially subject to the infection, and medical attendants who had contracted the tobacco habit fell ready victims because the cigar attracted the malarial, while the non-users of the weed were able to attend to hospital patients, and themselves escaped.

Not only the stomach, but the liver and all the digestive organs are disordered by tobacco-using. It is sometimes urged that chewing excites the salivary glands of the mouth, increasing the flow of saliva and aiding the process of digestion. But the tobacco chewer spits out with the tobacco juice the chemical secretion which should go to the stomach, and thus drains off

the salivary fluid to no good purpose. If he were to swallow it mixed with the juice containing nicotine, it would take him a long time to become accustomed thereto without nausea accompanying the act, and then would increase the poison in his system and cause greater peril to life. But the drawing of an unusually large amount of saliva is not an aid to digestion, even if the fluid could be swallowed in its natural state. To so excite the salivary glands is a violation of the law of nature which soon exhibits itself in chawers in the sharp and fleshless jaw, and the sallow and cadaverous countenance.

A further trouble connected with the digestive organs, arising from the use of the drug, is the increased danger in malarial fevers. For instance, in typhoid fever there are ulcerations in the bowels which often produce death by perforation, or eating through the coats of the intestine. Medical authorities say the use of tobacco favors perforation. Among the effects of its excessive use are debility and loss of tone of the stomach, nausea, failure of appetite, indigestion, constipation of the bowels, sick headache and biliousness.

Those whose employment leads them to an active outdoor life, where an abundance of fresh air strengthens the system and would greatly prolong existence in mortality if given opportunity, often show little signs of nicotine poison in the vital organs until advanced in years; while the man of sedentary habits early falls a victim to dyspepsia, nervousness, paralysis, or other organic difficulties which render existence burdensome. But whether man works indoors or out, the effects of the tobacco habit are clearly shown either in the mental or physical condition, or in both; for as was remarked at the outset of our inquiry, the workings of the poison exhibit themselves through natural effects at every step in the progress of absorption by the human body.

ENGRAVING DIAMONDS.

It is noted as one of the latest and most marked triumphs of modern science in its applied form that a process has been found by which diamonds can be engraved. The discovery is attributed to a French mechanic named Bordinok. The method employed is as yet a well preserved secret, except that the results are obtained by means of hardening and tempering in a peculiar way the tools employed. It is given out that the inventor by his new method can not only produce engravings on the surface of the polished stones, but perforate them and form them into elaborate designs and give to each curve the highest degree of polish. Jewelers are said to be much exercised over these new and valuable ornaments that are already in urgent demand.

The discovery will be of some interest to theologians, too, inasmuch as it may re-open a question that has been discussed somewhat. It will be remembered that to the official robe of Aaron and his successors belonged an ornament consisting of twelve precious stones, on each of which was engraved the name of one of the twelve

tribes. The third stone in the second row was a diamond. Objections have been made to the truthfulness of the Mosaic description on the ground of the impossibility of engraving anything on the hard surface of the diamond, and the only reply to this objection so far has been that probably the translation is in error, some other precious stone being referred to in the original. Should it prove correct, however, that M. Bordinok has made the discovery as claimed, it is conceivable that he has simply re-discovered a lost art with which the ancients were familiar. It would be another illustration of the trite saying about there being nothing new under the sun.

THE SHORT LINE'S EARNINGS.

Now that the general policy of receivers bids for the Union Pacific, the Oregon Short Line, and other portions of the great railway system seems to be definitely settled, it may be interesting to consider the comparative losses and gains in operating the divisions which lie in the mountain region. The Utah Southern division includes from Salt Lake south to Juab; the Utah Southern Extension takes in the section from Juab to Frisco; and the Utah & Northern consolidated with the Oregon Short Line has that from this city north. The estimated losses and profits for the year ending June 1, 1895, are figured up as follows by the present management:

Estimated surplus, Oregon Short Line division.....	\$228,922 00
Estimated surplus, Utah & Northern division.....	533,598 86
Estimated deficit, Idaho Central division.....	15,160 23
Estimated deficit, Utah Southern first and general mortgage division.....	96,160 87
Estimated deficit, Utah Southern Extension mortgage division.....	37,200 22
Estimated surplus, Oregon Short Line & Utah Northern consolidated mortgage division.....	23,347 06

With this showing, while the lines included in the division from this city northward are profitable, that from Salt Lake to Frisco has been operated at a loss of more than \$133,000, nearly three-fourths of which was on the division from Juab southward. The line from this city south, as a whole, never has paid expenses, that condition being one of the factors by which the proprietorship of the line from Ogden south was made to change from the original to its present situation. The only way by which the southern section could be made profitable would be as part of a main line through to a large mart such as southern California—that being the strong reason urged for its extension to Los Angeles, and which almost accomplished the taking up of the enterprise when grading was begun from Milford west. If by any combination of circumstances the Utah Southern extension should now become part of a trunk line to the coast, it is not probable that the coal and iron deposits of Iron county, which have come to prominent attention recently, would be left out; therefore the route would be diverted to include them in its direct territory.