

detriment. Since the active alkaloidal and resinoid principle of roots, barks, and galls have been isolated, and put in better and more convenient forms, there is no longer need of alcoholic tinctures and elixirs. Laudanum, which is a tincture of opium, might be banished from the shelves of every apothecary, as it is not needed. It is now known that the valuable narcotic and hypnotic principles of opium are contained in certain crystalline bodies, which can be isolated, and used in minute and convenient forms, and that they can be held in aqueous solutions. Alcohol is no longer needed to hold the active principles of opium, Peruvian bark, or other indispensable drugs. As regards the vegetable tonics so called, the best among them is the columba (*Panicum edule*), and this readily yields its bitter principle to water, as do quassia, gentian, soma, rhubarb, and most other valuable substances. A careful survey of the contents of a well appointed pharmacy leads to the conclusion that there is no one indispensable medicinal preparation which requires alcohol as a free constituent.

"PATENT" MEDICINES.

The catalogue of modern remedies is almost endless, and many of them hold alcohol in some form; but every intelligent physician knows that ninety per cent. of those alleged remedies have little or no intrinsic value. The nostrums of the quack, the bitters, elixirs, cordials, extracts, etc., nearly all contain alcohol, and this is the ingredient which aids in their sale. The whole unclean lot might, with advantage to mankind, be thrown to the fishes.

WOULD CHEMICAL SCIENCE SUFFER?

The chemist, more particularly the pharmaceutical chemist, may inquire how he is to conduct his processes without alcohol. It is from the pharmaceutical laboratory we derive some of the most important substances used in medicine and the arts. Among them may be named ether, chloroform, and chloral hydrate, three of the most indispensable agents known to science, and the employment of alcohol is essential to their production. Alcohol is a laboratory product, it is a chemical agent which belongs to the laboratory; it is the handmaid of the chemist, and, so long as it exists, should be retained within the walls of the laboratory. In the manufacture of most of the important products in which alcohol is either directly or indirectly used, its production may be simultaneous with the production of the agent desired. In the manufacture of ether and chloroform, the apparatus for alcohol may be made a part of the devices from which the ultimate agents, ether and chloroform, result. Fermentation and distillation may be conducted at one end, and the anaesthetics received at the other. It is true, that, in a chemical laboratory, alcohol is an agent very convenient in a thousand ways. But, if it was banished utterly, what would result? There are other methods of fabricating the useful products named and many others, without the use of alcohol; but the processes would be rather inconvenient and more costly. The banishment of alcohol would not deprive us of a single one of the indispensable agents which modern civilization demands; neither would chemical science be retarded by its loss.

SUBSTITUTES ALREADY KNOWN.

It must be remembered that the modern science has given us glycerine, naphtha, bisulphide of carbon, pyroigneous products, carbonic acid and a hundred of other agents, which are capable of taking the place of alcohol in a very large number of appliances and processes. The naturalist is no longer dependent upon alcohol for the preservation of his wonderful specimens; and the artisan no longer needs alcohol to obtain convenient heat for his tools, or to facilitate his labor: cheaper and equally good substitutes have been provided. Petroleum in its refined and perfected condition has taken the place of mixtures of alcohol and turpentine for obtaining artificial illumination; and alcohol for purposes of securing light and heat can never be again needed. It is only a quarter of a century since two million gallons of alcohol were consumed annually for illuminating purposes.

WHAT ABOUT PERFUMERS.

The perfumer employs alcohol in many of his products, but the question arises "Have we need of the perfumer?" The man who fabricates one small tin cover up another may be a very useful artisan; but certainly he is in no sense indispensable. Aside from his "cologne" and odorous extracts, the perfumer can dispense with alcohol, and, if his banishment should occur our good ladies would not know of the event from meeting with any unperfumed wares at the perfumers.

MEDICINAL STIMULANTS.

As regards the medicinal value of the spirituous liquors which are known in

commerce, very much may be said. If all commerce, very much may be said. If all the brandies, whiskies, wines, and malt liquors which now exist were suddenly destroyed, and there could be no further production, no class but dyspeptics would suffer any pain or distress for a single hour. If these beverages are sometimes useful as diffusible stimulants, they are often a bar to recuperation, no matter what may be the ailment.

In all cases of disease where an alcoholic stimulant seems to be indicated, science presents other stimulants, non-alcoholic which may serve an equally useful purpose. The alcohol question as related to medicine may be summed up in a few words. In some cases of extreme exhaustion or debility, it may be regarded as a convenient agent, if carefully employed, but in no instances of disease of any form is it a medicine which might not be dispensed with, and other agents substituted.

THE WRITER'S STANDPOINT.

This view of the chemical and therapeutic needs and uses of alcohol, as related to the human family, is not presented from the standpoint of the temperance orator, but from that of the scientific investigator.

We have often, for many years, taken a careful survey of the whole field, and speak with promiscuity and knowledge. To present the subject properly, so that all aspects of the question may be fully brought under discussion, would require, as has been stated, much more space than is at present at command. We hope at some time through another channel of communication, to discuss the matter exhaustively.

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Liquor and Labor.

The people of the United States pay each year 900 million dollars for liquors, 600 million dollars for tobacco, and 800 million dollars for tea, coffee, cocoa, and opium. This amounts to 1,680 million or about thirty dollars a year for each person in the United States. A family of seven, each consuming his proportion of these stimulants and narcotics, expends \$210 a year for things which are worse than useless to them. This money would more than pay the average rent of a workman's house, and in ten years would buy him a home or a farm.

The total loss of the laborer is not measured by the amount expended for these drugs, any more than the damage done by an explosion is measured by the cost of the dynamite which produces it, or the value of a life is estimated by the cost of the arsenic used to destroy it. A gallon of alcoholic poison may injure health, impair the constitution, unfit a man for labor, and cause accidents and calamities entailing ten thousand times the cost of the article which causes the ruin.

Three men in a town in Massachusetts left their work in a shoe shop and went on a drunk for three days. Their absence stopped the work of 150 men. The rum-sellers perhaps made a few shillings out of their spree; workmen and employers lost years of labor through one spree of these three men.

The loss caused by the use of strong drink falls mainly on the workington. Most of the drinking is done by them. If the total of 1,600 million dollars spent for strong drink and tobacco be averaged among fifty million people, it gives about thirty dollars to each person. But the wives, sisters, daughters, little children, and aged people use very little of the drink or tobacco. These are mostly consumed by the young and middle-aged men who are in active life. If we conclude that about one-third of the entire population are workington, who must earn most of the money, the average tax on each of these men for these harmful indulgences would amount to about \$150 a year, or nearly three dollars a week. But it is probable that half of the workington men in the country do not use intoxicating drinks, or only use them in small quantities. If this be admitted, it follows that about half of the workington of the country are taxed on an average nearly a dollar a day for stimulants and narcotics, which do them no good, but cause them great injury, unfitting them for labor, making them unskillful, and subjecting them to accidents, injuries, diseases and dangers of many kinds; thus deteriorating their work, consuming their wages and keeping their noses on the grindstone all their days.

And those laboring men who do not indulge in any of these evil habits, are still affected by the indulgence of others, whose intemperance deranges business, destroys property, demoralizes society, increases crime, insanity, and pauperism, causes vast expenditures for police service, riots, jails, prisons, almshouses and hospitals; buries the people, and loads down the philanthropic and temperate with the care of drunkards' wives and drunkards' children, who forage at our back doors for their supplies, beg the bread out of our children's mouths, and break our hearts with tales of woe and misery which we should never hear were it not for this curse of intemperance.

It is this very class of working men who are also in the greatest trouble about their wages. While laboring men in general feel the pressure of hard times, and are obliged to practice self-denial, and fre-

quently endure oppression at the hands of the rich and grasping, yet the cases of those men are far worse. They cannot do as much work or as good work as sober, temperate Christian men will do. They cannot work as many hours, nor earn as much wages. They are not as desirable help, and are more likely to be dismissed when work is scarce. Hence they are likely to keep up a perpetual clamor about work and wages; and are anxious to join some association where a drunkard will fare as well and get as high wages as a sober man, and where an idler or a bungler cannot be discharged under penalty of a strike, but must be kept in place and paid as much as far better workmen receive who may be worth twice as much, but who must take less than they earn that he may get more more than he earns.

Against this arrangement employers are sure to revolt, and such men finally strike their own level. Their condition is then most pitiable. The money which would have bought them homes has gone into the rum-sellers' till. The price of shoes and clothes for themselves and their families has been burned up in cigars or chewed up in tobacco; and they are consequently in a condition of grinding poverty, wretchedness, and discontent.

The cure which they propose for this condition of things is higher wages, and that, even if the employer is already running his business at a loss to avoid closing it up and discharging his employees. Another remedy suggested is to decrease production by shortening the hours of labor. This of course would tend to raise prices and so add to the expenses of living.

But is the fact of over-production clearly established? More goods are made than can be sold, but are more goods made than could be sold if people were able to buy them?

Let the rum and tobacco business be extinguished, and there would be 1,600 million dollars more to be spent yearly for things which people are now unable to purchase. We need not then talk about over-production in the shoe business until every drunkard's wife and child has two good pairs of shoes for their bare feet. We need not shut down the cotton factories, when every drinking man is sobered off, until each one has a clean shirt to put on Sunday. We need not stop the print work on account of over-production, until every drunkard's wife and daughter has a couple of neat print dresses. We need not complain of over-production in the woollen markets or the food markets until every poor ragged working man is provided with a Sunday suit, and every ignorant, hungry, howling anarchist, communist, and nihilist has his belly filled with food, and is cleaned up and dressed up like a gentleman, and taught to behave himself like a human being. And when we have gone through these distressed and poverty-stricken classes, if taxes are reduced and business brightens up a little, before we shut down the mills on account of over-production, there are several preachers, editors, and business men, each of whom would like to have a new suit of clothes, for a change, instead of depending upon patching and mending the old ones. Doubtless thousands of other people would be glad to purchase largely if they had anything to purchase with; and when instead of spending 1,600 million dollars for alcohol and tobacco, and only 600 millions for bread, 447 millions for woollen and cotton goods, 330 millions for meat, 85 millions for education, and five and a half millions for missions—a total of 1,345 million for food, clothing, education and the necessities of life, against 1,680 million wasted in poisons and narcotics—the workington, free from the paralyzing power of this incubus might, with plenty of work and good wages, be able to own his house, and live in the country, with his food growing night and day around him whether times are hard or easy,—he working eight hours a day, or eighteen, as he pleased; and capitalists, instead of tyrannizing over him, and taking advantage of an over-crowded labor market and a penniless population, would be obliged to wait on him at his home, and pay him his own price for his work, and would be able to do it through the prosperity which would come through such a reform.

Let working men turn their thoughts to this subject. Let them "strike" against the rum-sellers instead of the railways; let them "boycott" the beer shops instead of the bake shops; let them combine against long hours spent in gin mills and beer gardens; let them unite against Sunday work and Sunday sprees; and let them plant themselves squarely on the side of right and righteousness, of God and truth, and they will find such blessing, peace and prosperity, under the kind providence of God, as they can never expect so long as they are under the dominion of rum-sellers, politicians, monopolists, anarchists, nihilists, strikers, lodges, agitators and demagogues of every name, class and condition.—*The Christian, Boston.*

3350 More.

THE detectives Williamson succeeded in fining three Scott Act violators to the tune of \$230 and costs.

A Revival.

Messrs Dowd and Morgan have been conducting successful temperance meetings in Dundalk, assisted by the W.C.T.U.

In Elgin County.

JOSEPH BARNES, of Fingal, was fined \$100 and costs under the Scott Act, before Police Magistrate Leonard at St. Thomas.

A Batch of Convictions.

THE cases started by the detectives Williamson at Woodstock resulted as follows: P. Farrell, Jos. Scott and H. Rice were fined \$50 and costs each; Ambrose Hayward, Geo. Forbes and J. F. O'Neill, \$100 and costs each; while Wm. Hayward was discharged.

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YEAR Ending Jan. 1st.	PROFITS Paid on Policy No. 55,600.	ASSETS Per \$100 of Liability.	ASSETS Per \$1,000 of Insurance.	GROSS Accumulated Funds.
1878	\$11.33	\$115.88	\$307	\$24,141,185
1879	12.74	116.05	321	2,130,004
1880	13.72	118.10	331	2,458,195
1881	14.75	118.92	333	28,405,460
1882	15.85	118.32	338	27,910,284
1883	16.95	120.18	339	29,108,888
1884	18.14	120.70	341	29,080,556
1885	19.38	120.70	346	29,771,230
1886	20.59	120.42	347	30,025,281
1887	22.07	120.37	353	31,543,950

Some companies retain profits for five years before declaring them, and then their agents sometimes compare such accumulated profits against the ETNA'S Annual Cash Dividends, without explaining that most of those who die or drop out of such companies during the five years, receive no dividend. The ETNA divides annually, and pays down in cash, or in reduction of next premium, not in scrip or bonus additions, or due bills, to be lost if the policy lapses.

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1878	\$264	\$205	\$233	\$191
1879	283	210	180	204
1880	287	215	173	223
1881	294	185	177	205
1882	297	180	180	237
1883	302	173	184	264
1884	307	177	188	267
1885	312	181	187	280
1886	317	186	190	281
1887	321	185	188	284
	\$2,952	\$1,804	\$1,698	\$2,528
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