

Professional services	1,258,739
Trade and transportation.....	4,766,964
Domestic and personal service...	5,580,657
Manufacture and machine pursuits	7,085,992
Agricultural pursuits.....	10,381,765

Total of all occupations..... 29,074,107

The above figures show that in 1900 we had 46,305,883 people who must be accounted for, either as wives, home makers, or growing children, in addition to a class that may be termed, criminal, vagrants or loiterers. Having the figures of this paragraph before us the question may be rightly asked, what percentage of our people are there who can be protected from the destruction of life and property in our affairs, of work, recreation, loitering, vagrancy and criminality, by means of safety devices? The writer cannot figure out from existing conditions that much over 20 per cent. of our population can be safeguarded by the best application of safety devices that are to be provided.

When we consider that we are daily maiming and killing about 1,600 and destroying nearly \$2,000,000 worth of property, the 80 per cent that cannot be protected by safety devices strongly affirms that whoever desires to help best prevent accidents to any commendable degree will have to look to other factors.

Safety devices will not prevent an automobile's killing one and injuring four every day in the year as is the present rate, nor will they decrease the 5,000 killed and injured by the celebration of our "Fourth" with dangerous deadly weapons, and fireworks.

Again as an illustration in the case of fires and other forms of wastes in destroying property it can be asked. How much of our \$2,000,000 daily losses can be prevented by safety devices?

The campaign which the writer is waging, and the solicitations he is making for the support of citizens is not one merely to lessen the loss of a few lives and hundred dollars' worth of property every day as can only be done by safety devices, but one that seeks to strike at the roots of all the evils and the deplorable losses resulting from accidents.

We should be, as a people, brought to a position where common sense and prudent actions can make civilization a success, instead of having the crimes in terrifying wastage of life and property which our unbridled national laxity have created.

The evils causing us far the greatest number of accidents as found in the third paragraph of this paper are best known by those who have come up from being a (or were associated with apprentices through the sphere of) journeymen to become managers of business plants in which their own hard-earned savings are at stake. This is said with all due respect to those writers that are now constantly coming before the public through our popular magazines and papers, who attribute accidents largely to improper protection by safety devices and laying all the blame at the door of proprietors, something they would not do had they any extended experience as overseers or managers of hazardous labor, or sought to take measures best to prevent accidents.

When safety devices are put in it is often a continual combat for overseers to get employees to use them, and this is a point

there should be a special law, whereby operatives could be arrested by co-workers or employers and be heavily fined or imprisoned for not following instructions in using safety devices. Likewise where accidents are happening through the indifference of an operative to take a few extra steps or exertions, to obtain the chain or tool that was made especially for handling the job.

The writer is not seeking to censure anyone; the only desire is to have the issue rightly tracked and state facts that should have weight with our public press and legislative bodies in passing judgment on causes and best remedies to reduce our accidents to a minimum as far as practical.

It is not the purport of this paper to treat any of the needed training and discipline of youths and adults as a means to lessen the evil influences of the factors seen in the third paragraph, as the writer has previously presented very clear treatises on the responsibilities of the home, teachers, employer, operatives, etc., in regard to their respective parts in aiding the best prevention of accidents.

The chief object of this paper is to awaken an interest among all our founders in a plan to secure statistics to show the underlying cause of accidents in their plants, and such will no doubt arouse other industries, etc., to do likewise.

It is not to the employer's interests any more than that of the employee's, that we should remain inactive as in Europe, until ill-advised law makers will pass unwise liability provisions, the character of the same being shown in English employers being held responsible for his operatives from the time they leave their home until their return. In this connection it is to be remarked that this latter provision involves every person that hires another, no matter in what sphere of industrial or domestic employment. This as an example can include any citizen from one that might engage a servant or farm hand to one that would desire the services of a plumber, paper hanger in household work, up and through all classes of manual and clerical employment, even though employed but a few hours during any day.

We have now too many in our country that would be glad to meet with slight disabling injuries if they thought fines on employers or people worth a little property, would support them in idleness or on a drunk without increasing their number. To have such laws as are now enforced in some parts of Europe placed upon us would be very unjust to all our respectable and responsible classes of citizens that is worth anything, especially in view of the fact that this country excels others in carelessness and disasters.

The writer has always taken the position that the larger part of all our country's accidents were due to sheer carelessness or foolhardiness, and has placed much literature in the hands of public press editors, congressmen and others, to sustain this, and there is evidence of its having done much good.

It is said "The necessity for increased production involved greater haste and perhaps less tendency to watchfulness at machinery, so that there is the greater need for inculcating at an early age that scrupulous carefulness which we have heretofore been content to allow the experience of time to bring." This is all in accord with the

writer's advocacy of its being very important for us in this country to commence the teaching of greater care and faithfulness along with a more rigid discipline of our young in our homes and schools.

The "Engineering" also states "In foundry work, the increase is most marked. Ten years ago, the number of non-fatal accidents did not reach 2,000, whereas in the past four years, they have gone up from 3,800 to 6,798." This shows that this new employers' liability is not causing any reductions in accident, but working the other way. The iron, steel, malleable and brass foundries have all hazardous vocations and are all eager to reduce the number of their accidents all that is possible. It is believed that few things can assist them to do this at the start better than an education along the line of our learning the true underlying cause of present accidents.

In order to obtain such data, a blank form of report has been gotten up by the committee authorized by the American Foundrymen's Association on the prevention of accidents. This blank will be circulated in the very near future among all the foundries of the United States and Canada. Among other things on which information is requested in the blank is the classification of accidents by causes cited in the third paragraph of this paper, as well as those which were unavoidable by the unfortunate sufferers. Further, the expenses caused by these accidents, both direct and subsequent through repairs necessary or damaged by fire.

It is hoped that full statistics will be supplied, all of which will be kept confidential, and only the summaries, used for the purpose of making a general report, which if complete enough, is designed to play an important part in the legislation on accidents and other factors constantly coming up.

Both the writer as well as any member of the committee will be glad to furnish any further information that may be desired in this connection.

The whole question of the urgent need of and practicability of doing must, to prevent our great loss of life and property through accidents, is one that has been winked at by all classes entirely too long. Is not this indifference, if continued, one that will bring grave injustices and suffering to operatives as well as employers?

For humanity's sake, if for no other, this subject should be afforded every attention, and the appeals of this paper for data on the underlying cause of accidents, can, if liberally complied with, give results in helping to decrease them as by no other cause—statistics now in existence and should be commended by all that are involved in work or recreation, whether employe or employer.

POWER PLANT OPPORTUNITIES. Ontario.

TORONTO.—It is expected that tenders for part of the distributing plant for Niagara power will be called by the City Council, Toronto, in a few weeks time.

HAMILTON.—The contracts for the city waterworks, pumps and motors have been awarded as follows: The John McDougall Co., Montreal, the pumps at \$7,220; The Canadian Westinghouse Co., Hamilton, the motors at \$12,928.