

Engineering Department

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The Fire Department.

In this age of association, it is rather remarkable that in Ontario we have not yet a society of firemen. It is, however, but a question of time, and when formed it will no doubt be a valuable addition to the list of organizations of this description. Following is an extract from a paper read by Chief J. D. Paige, of Joliet, before the Illinois Firemen's Association, and is an indication of the wide range of matters which pertain to a fire department. Addressed chiefly to the volunteer departments, Mr. Paige says:

"You should know the necessity of having for your chief a man that ranks in your town with your bank president or leading merchants. Such a man will lift you up and bring to you the material aid you need; and although he may not be an ideal fireman from the standpoint of some, he will make you a much more popular, and a better department, than one with a fog horn voice and that uses large blocks of profanity. Fire departments ought to know that the respect and high esteem in which they are held by their own people comes from their loyalty and unselfish patriotism to the protection of the lives and property of their people, when in peril, the enthusiasm with which they spring to the rescue without expectation of reward when the dread fire alarm sounds. And the volunteer should so conduct himself in his private walks of life as to always merit their esteem, for no other city department is ever met at the gate upon their return from abroad by the populace, and with banners flying and music sounding, the banquet is spread by fair hands, and the speeches of welcome are sincere. If there are any firemen that think it is the correct thing to be loafers, they should quickly disabuse their minds of that idea. Firemen should know that the fire service is one of the best educators known; and whenever possible, members should study cause and effect of everything connected with the service. Meeting in the engine houses to play cards and read the Police Gazette will not qualify you for efficient firemen, nor will working at fires alone make you an expert fireman. The work is simply putting in practice the theory of fire work that should be crystalized and made ready for work when there is no fire. I am aware that this is not always practicable for volunteers in towns where they don't have half a dozen fires in a year, and amusements are scarce, as the volunteer is largely a social organization, and when the town gets large enough to furnish other places of recreation and amusement, then the volunteer association dies, for they have learned very little of the rudiments of fire service, and a paid department has to be built up largely of new material. You

should know, in case of fire, what will be your friend, and what your enemy; whether a fire can burn at all when exposed to a wind with a velocity of thirty miles an hour. Of course, the exposures will show you whether you can make the wind available or not. One experience will not give you the desired information in all cases. If you could have a high wind in a basement fire it would, in a large majority of cases, be your friend.

You should know it is not bravery to not know your danger and face it, but it is to know it and face it. Foolhardiness is not bravery. You should understand friction, and know how much of a stream you are going to get with the various lengths of lines laid; and put such a size tip on your play pipe as will give you the stream desired. You should know that you can destroy more merchandise by water than the fire is likely to destroy. You should know what kinds of merchandise are most damaged by water and smoke. Cigars are most damaged by smoke, and hardware most damaged by water. You should know that the insurance companies are watching you.

You should know that there is considerable valuable information to be gleaned from the papers published in the interests of firemen, although they do print considerable rubbish about some one having a smart horse that can chew tobacco. Of course such stuff will not educate a fireman. You should know that undue haste makes just as much waste at a fire as anything else. Haste to get there is all right, but coolness and brains to direct the work afterwards. You should know that if you have been drinking intoxicating liquor just before the fire or during the fire, that you are incapacitated for going into dangerous places. Nearly all the accidents to firemen happen to drinking men. Water should not be put on an oil fire. Ditch the oil if practicable; otherwise wet down the surroundings and let the oil burn until you can cover it with earth, if that is possible, otherwise let it burn out. Always put your water on the fire. If you cannot see anything but smoke, and cannot locate the fire, then wait until the fire makes its appearances. Fire in a basement often shows as much smoke at the roof as anywhere. Do not in your hurry tear off the roof to begin with. Do not be scared at a gasoline fire. Gasoline makes great flame, but it is quickly over, and then you can understandingly attend to the fire that is left, if any. It is frequently the case that it leaves none.

Iron ladders with stand pipe for hoses should be insisted upon in all cases where buildings are 3 or more stories in height. You should know that flour mills are very explosive. You should know what all the buildings you have to protect contain. If the fire in a building is beyond your control upon

your arrival, let it burn, and devote your energies to saving adjoining property. Firemen should have comfortable quarters, and volunteers should have attractive quarters. They should always have some kind of fire alarm. In these days of plentiful telephones a very satisfactory and inexpensive one can be provided by the telephone management; and, of course, somebody's bell must be rung. Then fire hose, and not too much of it. It may not be taken care of in a manner to get its full value. Hose should be purchased to fit your water pressure. If you cannot get but a hundred pounds pressure, (and you cannot get but half that as a rule at the pipe,) then a single ply cotton hose at about fifty cents a foot, will last longer than the heavier and costlier. If you get it wet, dry it in the sun or on the sidewalk, when practicable. Never wash it. Sweep it off with a stiff broom. A cap and reducer, with a nipple for one-inch hose, is a necessity when you want a small stream to crawl with in cramped places. A hundred feet of rubber hose is about the right thing for this service. It is assumed that you have waterworks or a steamer. Expensive nozzles are not a necessity. A light nozzle that can be grasped anywhere is the best for all uses. Shut off nozzles are not a necessity, and are bad for the hose or the pumps. Deluge sets are only useful when there must be a unity of streams. Learn to put out the fire without deluging it. Insurance companies will make a note of it if you do so. If you must drag your machine to a fire by hand, let that be all that is expected of the men who do the hauling. If they must take the place of horses let them do as horses do—stand and look on—for they are certainly unable to work, and have another set of men to work on the fire. A chemical engine is a grand thing, but of very little use in a manual volunteer department. Hand chemicals of about three gallons each should always be a part of the equipment. A few short ladders, twelve, fourteen and sixteen feet, and capable of being spliced by putting two of them together, are a necessity. A roof ladder of the Pompier style, but with a hook on the end, is handy to assist in crawling over roofs. Three Pompier ladders, fourteen feet long, are a necessity. With these you can scale any height. Some belts and rope belong to this outfit. One wagon can carry all these things with the hose. A wagon is much better than a reel for the good of the hose, and is much more convenient and adaptable for all kinds of service.

When looking for information, only apply to towns of similar size to your own. Much larger and much smaller towns may need an entirely different outfit. Always get what will fit your town. Great attention has been paid to quick hitching and quick getting out of the house, but little attention to quick extinguishment of fires. This is a matter that should be given careful attention, for the quickness with which you can extinguish a fire is everything.