taste; setting a vicious example to the entire community, and giving a debased tone to all utterances, private and public.

Who can believe in a man's earnestness, or sincerity of conviction who expresses his views with flippancy, with slang, with vulgarity? Surely any member of the Press is open to very grave reproach who ignores his moral responsibility, as is done by those who pander to the taste for depraved forms of language and encourage practices that are lacking in refinement and dignity.

The Press is one of the most powerful educational influences of the age. But there are two kinds of education, the one kind draws out, developes, strengthens the latent forces of evil—Fagin was an educator. The other kind seeks to repress all debasing tendencies, by cultivating, invigorating and inspiring all those mental and spiritual faculties, the exercise of which give elevation to humanity. The conductor of a newspaper who familiarizes his readers with mean, unmanly thoughts; with phrases born in and the special language of low resorts; who plays the literary mountebank to please the vulgar, is not only a scandal to the Press, he is a public nuisance, danger and disgrace. Sincerity of purpose, consistency to convictions, mastery of principles, intellectual culture, a wide range of rending, raise their possessor to a plane higher than is ever reached by those who pander to the coarse tastes of the illiterate and the frivolous. The newspaper that commands the highest degree of public confidence; the most general public respect; that is recognized as a wholesome power in the State, is the paper which is confident in its own integrity; is imbued with self respect, is wholesome in its mental equipment. Such a publication represents and developes the highest phase of the national life.

CHEMISTRY OF FIRE AND CHEMICALS IN FIRES.

INTERCHANGE OF PAPERS SUGGESTED.

A paper on the "Chemistry of fire and Chemicals in Fires," was read before the Fire Insurance Society, Philadelphia, on 20th ult., by Mr. Hexamer, president of the National Fire Protection Association, illustrated by experiments conducted by Professor Keller. It would be highly advantageous to the interests of the Insurance Institutes in Canada were an interchange of lectures and papers to be arranged by which the talent of one city to be available for the benefit of others. This is done in the United Kingdom, where the experts of one part of the country read papers or deliver lectures in distant cities, thus placing the whole experience and ability in each district at the service of every other district. We commend this suggestion to the executives of our Insurance Institutes.

Mr. Hexamer's paper is reported as follows in the "United States Review":

"A definition of the phenomena of fires was given as follows: 'A fire may be described as a phenomenon due to combustion or oxidation of a substance evolving heat and light.' The speaker pointed out that oxidation without light, even though heat be evolved, is not fire, also that, however slight the heat evolved may be if confined, fire is sure to ensue. Referring to phosphorous as one of the most ignitable of solid substances, Mr. Hexamer explained the chemical action when this substance is exposed to air, oxidation taking place slowly in the beginning, and as the temperature of the phosphorous is raised by reason of the chemical action in time fire ensues. When dropped into a jar of pure oxygen the chemical action is at once violent and ignition takes place more rapidly. Sodium was then discussed and the chemical action resulting when this metal is thrown into water was explained. The fact that the presence of moisture or water is absolutely necessary to cause spontaneous combustion due to oxidation was pointed out as was also the recent discovery that phosphorous when thrown into absolutely dry oxygen will not ignite.

Referring to spontaneous ignition of rags or oily waste the speaker explained that the presence of moisture is also necessary to produce this result. The importance of the temperature at which a substance will ignite was then pointed out and as an example of a substance igniting at a very low temperature, celluloid was mentioned, said substance igniting at about 300 degrees F. A number of fires were mentioned due to this. At this point Prof. Keller made a number of interesting experiments explaining Mr. Hexamer's remarks. The second part of the paper was then taken up and in a brief way a number of chemicals frequently met with were discussed. The speaker describing the chemical, its use, the process of manufacturing same and subsequently the hazard in using or storing it. Phosphorous, sodium, potassium and their compounds were discussed. The chlorates and nitrates of the last two substances were particularly referred to and their use in textile industries explained and the hazard pointed out. The danger of storing chlorates and nitrates in buildings containing carbonaceous substances was pointed out and explained. The speaker then referred to the very interesting and instructive experiments made recently by Mr. McDevitt and expressed his concurrence in Mr. McDevitt's conclusions. Carbon in its various forms was next discussed. Charcoal lamp black and bone black were mentioned and processes of their manufacture and their uses explained. With these substances also the speaker referred to the fact that moisture or water is necessary to produce spontaneous combustion.

Oils, likely to produce spontaneous combustion, namely, linseed, cotton seed and various animal oils, were mentioned. Caution as to storage and disposal of oily rags and press cloths was expressed, the foregoing substances being classed as chemical substances producing fire by reason of being ignitable themselves. Substances which in connection with chemicals or substances produce fire by reason of increasing temperature and igniting of nearby substances were then taken up. Prof. Keller, by reason of his demonstration and clear explanation of the experiments made, undoubtedly added materially to the success of the description of this portion of the paper. The experiments showing the ignition of chlorate of potash and sulphur by adding a drop of sulphuric acid, and the ignition of a mixture of sodium dioxide and aluminum powder by adding a drop of water, also the burning of phosphorous under water, the oxygen necessary being supplied by action of sulphuric acid on chlorate of potash were striking and instructive. The hazard in