

Chairman,—

“Next order of business,—Report of Standing Committee.”  
Nil.

“Unfinished business.” Nil.

“New Business.” Nil.

“Reports of special committees.” Nil.

“Unfinished discussion of papers read at previous meetings.”

Might here say, gentlemen, that I think we should hold a special meeting some night in order to discuss papers read at previous meetings. I am sure it will be of interest to all of us to have a review and discussion of these papers.

The following paper on Injectors was presented by Mr. James T. Burke, Chief Factory Inspector for the Provincial Government:

Mr. President and Gentlemen: It affords me a good deal of pleasure to have the honor of presenting to your honorable body a paper on Injectors. If time had permitted I would like to have gone into this question more exhaustively, but have endeavored to give you a brief outline of the working, history and operation of the injector. An injector, as you are all doubtless well aware, is a device for injecting a supply of feed water into the body of a steam boiler. It was invented in 1858 by Monsieur Giffard and covered by French patent No. 21437, May 8th, 1858, and United States patent No. 27979, April 24th, 1860. It may be interesting to you to know that the invention of the injector was merely the outcome of Monsieur Giffard, endeavoring to perfect a flying machine. Finding it necessary to lighten the equipment as much as possible, he, fortunately, conceived the idea of using this system of supplying water to a small evaporator, in place of a steam pump, which was too heavy for his purpose. The flying machine was a failure, but Monsieur Giffard, through his patent injector, made somewhere in the vicinity of one million dollars. Prior to the invention of the injector, boilers were supplied with water usually by the use of steam pumps which forced the water into the boiler against the pressure of the steam. In Monsieur Giffard's injector, this is effected by the pressure and condensation of steam from the boiler itself. Monsieur Giffard takes a jet of steam from the boiler, causes it to lift the water in an external pipe and blows it directly into the boiler against its own pressure. So paradoxical and inoperative did this seem at first, that it was met with incredulity and not until repeated demonstrations established the fact, was it accepted as an operative device. The supply of water and steam are conducted to a combining tube and have to be adjusted according to the conditions of the pressure in the boiler and according to the temperature of the feed water. It is found that when