THE CENTRAL RAILWAY AND

plosion in the air cylinder of a compressor. I believe there is but not much and it is generally a matter of carelessness, even if an explosion did take place, hydrocarbon vapours and air explosions rarely exceed 300 pounds per square inch and the compressor would have a limit of strength to withstand this.

Most cases of explosions are no doubt, due to poor oil but an excess of oil sometimes causes ignition. When too much oil is used, there is a gradual accumulation of carbon which interferes with the movement of the valves and chokes the passages causing high temperature and explosions and then again sometimes, kerosene oil is put in the cylinder for the purpose of cleaning the valves. As this is very inflammable, it should not be used. Leaky discharge valves are also a source of danger by explosions as the hot air leaking back into the



cylinder to be again compressed with an additional temperature perhaps high enough to ignite. As a remedy for this, the discharge valves should be cleaned often and only the best oil used for lubricating the air cylinder.

We will now consider the question of the transmission of compressed air. It is generally considered that for economy the actual velocity in the main pipes should not exceed twenty feet per second. It would be well if more attention were given to the capacities of the distributing pipes as it often occurs that while the main pipes are of proper capacity, the small pipes or hose are too small and very often, velocities of as high as 50 feet per second are used and I think you will agree with me when I say that in the majority of plants, that the piping arrangements are outrageously bad. In these plants, the use of compressed air was started on a limited scale. Its use was then increased and distributed all over

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