

W. Evans	J. Dodds	Chas. De Grouchy
F. Burrows	J. Duguid	W. C. Sealy
W. H. Alderson	J. Anderson	J. Bell
H. Cowan	W. D. Cole	R. H. Fish
A. Hallamore	F. Hardisty	J. W. Jackson
W. Kirkwood	A. J. Lewkowitz	G. McIntosh
W. McRae	D. Campbell.	

Chairman,—

I will now ask Mr. P. McCabe to read his paper on "Compressed Air." The fact that compressed air is being used for so many purposes, and that the business is one capable of such expansion, will make the subject a very interesting one. I have much pleasure in calling on Mr. McCabe to read his paper. (Applause)

COMPRESSED AIR (HISTORICAL)

By P. McCABE, General Inspector of Compressed Air Plants,
Toronto Railway Company.

Mr. Chairman and gentlemen,—I am going to read this paper to-night and see what you say when I am through.

The use of air in its lower condition of compression for power and for mechanical purposes has been known from the earliest ages, and antedates any knowledge we possess of the use of steam by many generations. The reduction of metals from their ores and the forging of the iron and steel brought the forge and the-blast furnace, with the use of air, under pressure, into existence as mechanical appliances more than two thousand years before the Christian era.

The evidence of the use of the air blast under compression are plainly seen depicted on the sculptured walls of the structures of the oldest civilization, and are made still more manifest in its enduring paintings and in the legends of the early historians.

The old methods of compressed air production seem to have taken on a crude and nearly stationary form for at least two thousand years before, and for more than one thousand years after the Christian era, and in some parts of the world may be seen in operation to this day.

In China, India, Burmah, Africa, and Madagascar the primitive methods of compressing air are still in use. The air treading bags, the wooden cylinder and piston, and the Chinese wind box are the common devices for producing the air blast.

The properties exhibited by a partial vacuum must have been well known from five hundred to one thousand years