

## LECTURE ON ADOPTION OF TRIPLE VALVE DESIGNED FOR MODERN STEAM RAILWAY AND TRACTION SERVICE.

BY MR. A. B. BROWN, REPRESENTATIVE OF THE WESTINGHOUSE AIR BRAKE CO.

Mr. Chairman, and gentlemen:—Before taking up the subject to be discussed this evening, would like to state that I am much pleased to be with you for the purpose of a general discussion of air brake matters. I feel under obligations to the Executive Committee of the Club for thus giving me an early opportunity to explain the recent improvements our company have made in braking made necessary by the changing conditions upon steam and electric railways. You will note from the advance copies of the paper to be read, that the subject matter is rather brief. I hope you will not feel that in submitting such a short report I am attempting to lower the standard of the papers of the Club. Instead I thought it would be best to simply outline the reason for the various changes and to describe the advantages and operation of the various valves on the screen. The slides that will be exhibited show very plainly the various ports and passages, and therefore one can get a clear conception of the different valves.

I believe I voice the sentiments of all present this evening with the statement that had we been told a very few years ago of the desirability of further improving the quick action freight triple valve, most of us would have stated promptly that such a course is unnecessary.

On account of its satisfactory performance in all of the prominent brake trials, and during long years of actual railway service, much confidence was imposed in this little valve, which was developed after considerable experience by the Westinghouse Air Brake Co. (with the assistance and patience of railway officials); therefore, any suggestion to improve as above stated, regardless of the apparent soundness of reasoning, was usually met with considerable opposition.

As is well known, the plain triple valve was a part of the first automatic air brake and it operated very satisfactorily upon short freight trains, but with the decision of several of the leading railways to handle trains of 50 cars in length, brake tests were made along thline byd a committee of the Master Car Builders Association, with the result that they refused to sanction the use of the plain automatic brake upon trains of this length, the ground for such refusal being found in the long interval between the application of the first and