The superheat in each case is 273 degrees F., 302 degrees F., 170 degrees F.

The average vacuum for all three tests 27.4 degrees.

Chairman,—

I am sure you have all listened with a great deal of pleasure to the paper Mr. Wickens has read, and if there are any of you who have any questions to ask I am sure Mr. Wickens will be only too pleased to answer them.

Mr. McRobert,—

In the event of the cylinder lubrication ceasing when using superheated steam, what would happen? With the extremely high temperature and dryness of the steam, would the walls of the cylinder not be likely to become scored before the engineer could provide a further supply of oil?

Mr. Wickens,—

I think it would take quite a few minutes before any damage would be done to the cylinders.

Mr. McRobert,—

According to what I have read by Professor Thurston, who is supposed to be one of the greatest authorities on this subject, the whole of the saving effected by superheated steam is in the overcoming of cylinder condensation, and according to the paper this must amount to about 10 or 15 per cent. Superheated steam has absolutely no thermo-dynamic value. The low temperature of uptake gases in modern boilers lessens the destruction of superheaters, but necessitates a larger area of superheating surface. The larger the waste, the further should superheating be carried. The value of the maximum measure of ideal efficiency T (T_1—T_2) is in no manner altered by the introduction of superheated steam.

Mr. Wickens,—

I think the gentleman whose report you were reading has missed part of the idea. The fact that we increase the volume without increasing the pressure seems to be overlooked. As stated in my paper if we take a cubic foot of steam and superheat it we get 1¼ cubic feet of steam, by this we increase the volume of the steam practically one-quarter for the small expenditure of 7.8 B.T.U.'s over the amount required to get the original cubic foot. I think that nearly all the men who