

DISCUSSION.

MR. SHIRRA, in opening the criticism on the paper, said the Association was much indebted to the author for bringing the subject before it, as there were few members who were fully acquainted with the subject of water gas, and it would be well if some one with practical knowledge of those engines in Australia would come forward and tell their experiences. There was no doubt that there are such gas-producing plants in Australia, and it was also true, as the author had said, that there was a great future before the gas producers. The subject had been taken up at home by the Midland Railway Company, and by Messrs. Baird, on the Clyde. One great point with gas engines and gas producers is that they consume their own smoke. That being so, they would in future be able, so to speak, to kill two birds with the one stone, as the smoke nuisance would be avoided, and the residue ammonia could be applied to the production of the wealth of the soil. He cordially thanked Mr. Fell for bringing the matter forward.

MR. C. COLTON (a visitor) thanked the Association for the invitation to attend the meeting. On the subject of water gas he knew as much as most people in New South Wales, having had experience of it for the last three years at the works of the Australian Gas Company, where they had the most compact and originally modern water gas plant yet produced. He described the process of gas production and purification at present in vogue by the Company, and held that it was superior and much more advantageous than Mr. Fell's water gas process. Regarding the question of ammonia for the soil, he said he would like to know why 90 per cent. of the ammonia was allowed to go out of the country when it could be usefully utilised in this State.

MR. FELL said in reply, that Mr. Colton seemed to forget, in making a comparison with larger plants, that his (the speaker's) plant was a complete plant in itself, water gas had not to undergo three distinct processes in three different vessels

but water gas was three times better than the gas produced by the older method, and its great feature was cheapness of production. With plenty of water used in the scrubbers a much larger percentage of the impurities was removed, in fact, the more water passing through the plant at a low pressure the clearer and better would be the gas. He had brought this matter under the notice of engineers because he believed that water gas was the coming power, and that the subject ought to be brought directly under their notice. At Messrs. Lysaght's works a gas plant was working very satisfactorily, and if members cared to see the process in operation he was quite sure he would be able to get a permit any day to see it. The cheapness of water gas (three farthings per thousand feet) was bound to facilitate the advancement of the internal combustion engine, and as an explosive it was in every way as efficient as coal gas.

