

## DISCUSSION.

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The CHAIRMAN (Mr. W. D. Cruickshank) said the paper was a very interesting one, and reflected credit on the author, and he trusted that gentleman would read another before the Association at an early date.

Mr. NORMAN SELFE endorsed the previous speaker's remarks. He said that there was hardly any other branch of engineering in which so many contradictory opinions were to be found. Until recently the majority of hot water engineers were in favour of having the water distributed from a tank on the roof instead of the spiral coil heaters mentioned by the author. He might cite an instance of defective circulation—a large building in Sydney, where no hot water could be obtained at any of the taps, yet at the same time on going on to the roof it was found that the water was boiling over through the escape steam pipes. After trying the experiment of reversing the pipes, and putting in a retention valve, the apparatus worked perfectly. This only showed that men, experienced plumbers, who had fitted up this apparatus, had made a mistake. The principal point underlying the whole matter was that hot water had a less specific gravity than cold, and its circulation in the pipes should be impeded as little as possible.

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