

(For Description, see Page 209.)

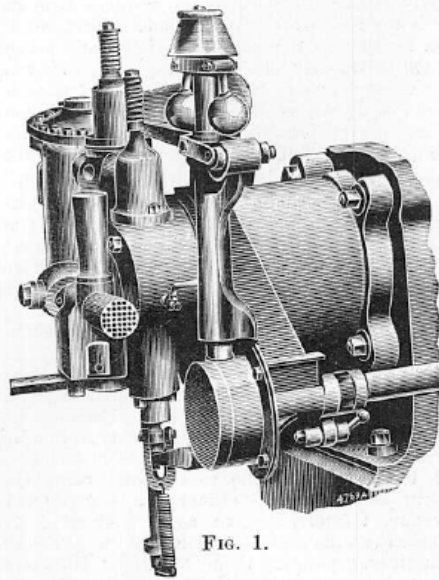


FIG. 1.

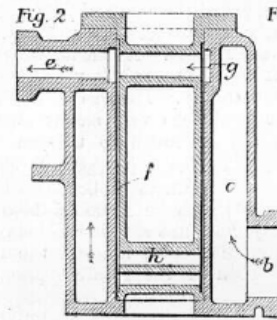


Fig 2

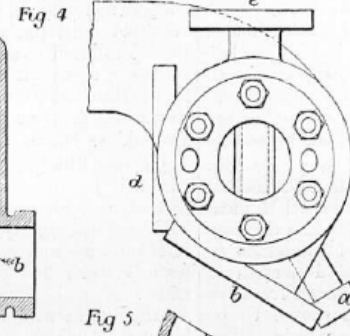


Fig 4

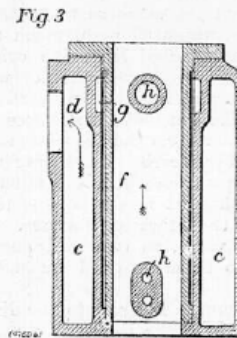


Fig 3

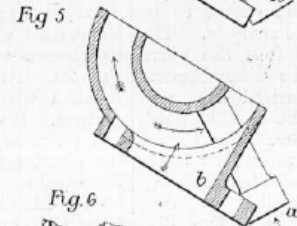


Fig 5

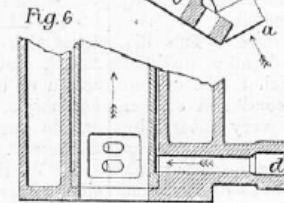


Fig 6

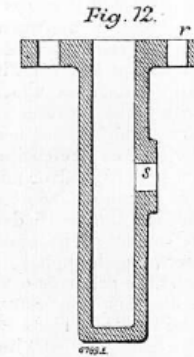


Fig. 12.

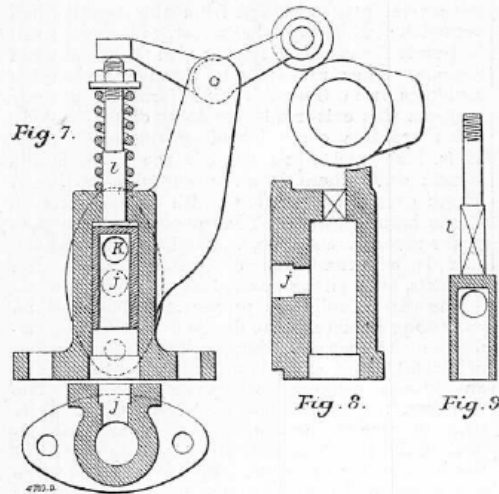


Fig. 7.

Fig. 8.

Fig. 9.

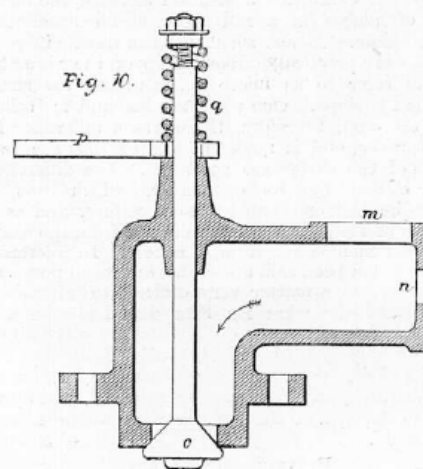


Fig. 10.

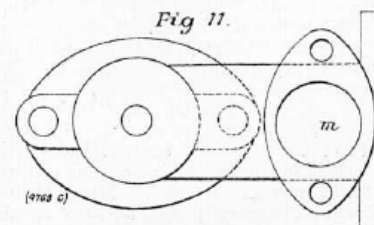


Fig 11.

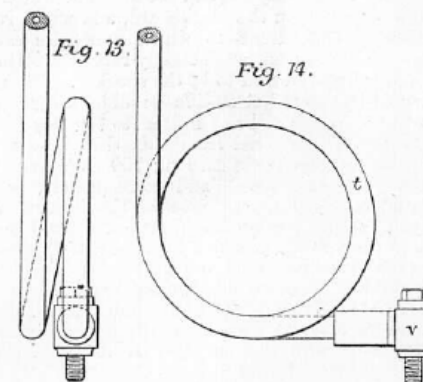


Fig. 13.

Fig. 14.

ever, if they did he also was fully prepared to admit that changes in iron similar to that just mentioned would be allotropic. Sir William Roberts-Austen seemed to think that the mechanical influence of carbon on iron was not yet known. In Sheffield, however, they were certainly labouring under the impression that they did know it. He suggested that the diagram of Professor Howe's crucible steel tests might now be regarded as almost obsolete. It showed that the maximum stress per square inch for crucible steel was about 48 tons at 0.9 per cent. of carbon. At Sheffield, on numerous tests, they found that pure iron and carbon steels had at 1.2 per cent. of carbon a maximum stress of 62 tons. With reference to the genial satire of Mr. Windsor Richards on micrographic constituents, he must

who produced austenite would be requested to transfer his services to another firm.

In conclusion, he wished to say that after arguing in a circle for nearly 10 years, the two schools of metallurgy seemed to have come back to the same point. But he was glad to know that the new light resulting from the experiments on either side had brought about a practical agreement. Most of our eminent international metallurgists considered the carbon in hot or quenched steel to be in combination with the iron. He was very pleased to find that they were supported in this view by Sir William Roberts-Austen and to note that the distinguished French metallurgist, M. Osmond, thought this might be the case. It thus seemed that not the least important feature of the fifth report to the All-England Committee

