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## THE ECONOMY OF SMALL GAS ENGINES USING MONTREAL ILLUMINATING GAS.

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Anything written at the present time concerning the gas engine needs no apology, for the rapidity of its growth—little short of marvellous during the past decade—and the remarkable manner in which it has recently gained in scientific and popular favour places it in the front rank of those objects which command the attention of all who are interested in prime movers.

Notwithstanding the fact that most attractive thermodynamic problems and possibilities of high heat efficiencies were always presented by the gas engine, its development during its early growth was neglected because of the difficulties, chiefly mechanical, that necessarily had to be overcome before it could become of practical use. Manufacturers, following the path of least resistance, strove by improving the steam engine to obtain greater economy in heat engines; and indeed obtained the desired result. But with the high pressures used at the present time in the multicylinder engines, it is obvious that, without superheating, the limit of economy in this