

GAS ENGINE TROUBLES AND REMEDIES

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Gas Engine Troubles and Remedies by Albert Stritmatter

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ALBERT STRITMATTER

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TROUBLES
AND REMEDIES**

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BY

ALBERT STRITMATTER



CINCINNATI

The Gas Engine Publishing Company

GOODALL BUILDING

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JAN 14 1904
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PREFACE.

The gas engine is being rapidly adopted in increasing numbers for all uses for which the steam engine was once regarded as the only practical and profitable prime mover, but the amount of information possessed by the general public on the subject of gas engines is surprisingly small. And as the gas engine does not usually become a menace to life and property when unintelligently handled, it is often the case that the operator does not feel the necessity of having a full understanding of his engine. And even if he is ambitious to secure such knowledge, where is he to get it? There is on the market a considerable number of books which are devoted to the subject of gas engines. Some of these are mainly explanations of various makes of engines, no one engine receiving very much attention. Others of the books are devoted to the methods of constructing gas engines. None of them devote more than a few chapters to the care

of the engine or the difficulties which may be encountered in its operation.

This book has been prepared to meet just such a purpose. It has not been intended to be a guide in the design of an engine, nor has it been desired or found possible to give intricate explanations of any particular makes of engines. It has been intended to help the gas engine operator to help himself, to aid him in learning why the engine does not give proper results under certain conditions. In short, it has been the aim to assist him in studying his engine and to gain an intelligent knowledge of it, which will permit him to secure the best results with a minimum amount of care and attention.

Most of the material in the book appeared in a series of articles published in *The Gas Engine*, but it has been gone over carefully and some changes made, as well as a number of illustrations added.

ALBERT STRITMATTER.

Columbus, Ohio.

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I.

GASOLINE FEED SUPPLY.

In an article published in one of the magazines on the subject of machine tools, it is explained that the hand of man can not make two things exactly alike, but man can make lathes, milling machines, planers, etc., which can work at high rates of speed on the hardest materials, producing the most difficult and intricate shapes with such accuracy that any one piece of a certain type of machine will fit exactly into a definite position on any one or all of thousands of those machines. It has only been since the advance which the United States has made in the interchangeability of parts that we have become the leading machinery country of the world. The delicate machines of all kinds which we now produce are possible, especially at the

comparatively low prices at which they are sold as compared with their cost when made by hand labor alone, only by the machines which produce large numbers of parts exactly alike, and to a certain extent, automatically. In some cases these parts do not vary from each other by a thousandth of an inch. Such is the case in the bore of our large coast defense guns, and many of these vary much less than the amount given.

But of all the machines which have been advanced by the progress in machine tools, perhaps none has advanced more rapidly or been due more entirely to such tools than the modern gas engine. For a great many years these machines have been covered with very delicate and intricate mechanisms for operating the governor, valves, etc. It used to be necessary to use these intricate parts in order to get the machines to run at all. And, indeed, it is surprising that many of them ran even then. Many of our gas engines which are made today are perplexing to even the well informed gas engine operator on account of the multiplicity of their parts.