

get fat on them. The trouble seemed to be that the ordinary white arsenic was not ground fine enough, and that it would not dissolve satisfactorily in water. But when he ground it in water containing an organic colloid substance, like gum arabic or glue, the arsenic was reduced to an almost impalpable fineness - became, in fact, a colloid itself.

In this condition it was extremely effective and almost incredibly rapid. A bait containing one two-hundredth of an ounce killed a rat in thirty minutes, whereas the same dose of ordinary arsenic required twenty-four hours for fatal effect.

A large-scale test was made on a dump where scores of big rats fattened. Two pounds of poisoned bait was distributed, and many rats were seen carrying it off. Ten days later only a couple of rodents were left out of the whole population.

Dr. Hedenburg suggests that when his discovery is put into regular use and marketed, it may be put up into tubes as a paste, to make for economy in use, and that for safety's sake the paste should be colored blue.

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#### WATER GAS MAY BE NEW SOURCE OF GASOLINE

Water gas, which forms a part of most city gas, and is obtained by passing steam over hot coke, may become an important source of gasoline in the future. This is indicated by experiments of Prof. Franz Fischer and his assistants working at the Kaiser Wilhelm Research Institute for Coal Products, at Muelheim on the Ruhr.

The process makes use of a catalyst, a substance which accelerates a chemical reaction, but is not itself changed in the process, and Prof. Fischer says that by choosing the proper catalyst, temperature and pressure, not only gasoline, but wood alcohol, vaseline, and other related substances can be obtained.

To make gasoline, says Prof. Fischer, the water gas, from which all traces of sulphur must have been removed, is passed over a catalyst consisting of a finely divided mixture of cobalt with oxides of such metals as chromium or zinc, at a temperature of 500 degrees Fahrenheit.

It is said that gasoline thus prepared compares favorably with the best natural product, and requires no further refining, because the sulphur has already been eliminated from the raw material.

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The Arabian horse has fewer vertebrae in its back and tail than other horses.

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Searchlights that can be attached to lifeboats are now on the market.

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