

INVENTIONS

Phantom Inventions

Legends about inventions ranging from the everlasting razor blade to the better carburetor have sprung up. Attempts to trace such stories end in dead alleys.

By ROGER WILLIAM RIIS

► "THE straight fact is—and I know what I'm talking about—it is perfectly simple today to produce a carburetor that will give us 50 miles to a gallon of gas. But the big oil companies suppress it. They've bought up the patent and put it away in permanent cold storage. You don't think they'd be fools enough to cut their own throats by producing a really good carburetor, do you?"

Have you heard about that carburetor?

Have you heard about the steam automobile which could be built today vastly superior to the gasoline buggy—if the oil companies and all the other established automotive interests would only stop suppressing the patents?

Have you heard of the telephone instrument which the telephone people could perfectly well manufacture, with television attachment so you could see the person you were talking to? Or the camera with built-in exposure-meter and automatically controlled shutter, which the camera people could produce profitably for \$10, if only they would stop suppressing the patents?

Or the razor blade, to fit any safety razor, made out of a new steel alloy treated by a new atomic method so that a single blade will last forever? Or the individual radio, no bigger than a match box, so you could be always in touch with whomever you wanted to be in touch with?

Stories about such inventions go on and on, told year in and year out, always with indignation at the wicked corporations, and always with "I got it straight because the chap who works next to me has a brother who—"

The stories have four common characteristics: (1) they are never first-hand; (2) the hero is usually a poor but brilliant inventor; (3) the villain is the wicked corporation which suppresses the most desirable inventions to its own cash profit and to the public's lasting suffering; (4) they are all untrue.

Recently several companies have been at pains to run down these rumors. They wanted to run them down because, if there were any such splendid inventions anywhere, the companies wanted to buy them and use them. If there were in fact no such inventions, the companies were curious to find out how the stories ever got started.

The myth of the everlasting razor blade recurs with annoying frequency, the Gil-

lette Company admits—every year or so, but always by word-of-mouth rumor. But not long ago it became so definite as to appear in print in a reputable newspaper, which even said that Gillette had paid seven million dollars for the patent.

Hopeful of coming to grips this time, the company wrote the newspaper, saying they knew nothing of any such patent or transaction, but would very much like to. After months of effort, by newspaper and manufacturer, this is what developed:

The writer had been told the story of the razor blade by his former professor of journalism. This looked like a sure lead. But the professor, questioned, could only say: "I have been trying to think just where I got hold of the information concerning Gillette. It occurs to me that it came from a book called *Putting It Over*. The names of the authors escape me at the moment but I remember it is by two men, experts in the general publicity field. I can see the cover of the book, black and soft leather, and the thickness, but I can't get the names."

Though the professor could not trace down the book which he asserted was his authority, the Gillette Company did, through the Library of Congress. Neither the story in question nor any mention of Gillette appear in the book. The trail simply disappeared. Once again Gillette missed out on the everlasting razor-blade.

During 1949 such very circumstantial stories about an astounding new carburetor ran around the country that Sun Oil took notice. Millions of people heard the story, which kept very close to the same plot.

A man who had been months on the waiting list for a new car was overjoyed when at last his number turned up. Proudly he drove away in his new chariot, and spent every leisure moment of the next month in it. After the first 500 miles he took it back to the dealer for a check-up.

"It's the most marvelous car ever," he assured the dealer. "Your sales talk didn't do it justice. Do you know, I've been getting 50 miles to the gallon of gas?"

"What!" gasped the dealer. "Good heavens! Wait a moment."

Swiftly he lifted the hood and looked within. A moment later, greatly disturbed, he turned to his customer:

"Say, I'm awful sorry about this, but you got the wrong car. You got a special factory job they've been looking for all over the country, one they were experimenting on. It got out by some mistake, and

they've got to get it back. My orders are to give you anything you want in the way of another car or a cash refund."

There are fascinating little variations in the story, which give it remarkable semblance to truth. In one version the story ran that two such experimental cars had got out, but one had been found in New England and recovered. In another, the owner of the car was given a new car of twice the sales value plus a check for \$1000.

The stories were outstanding for their clarity and definite detail. Sun Oil therefore sent men out to track down this mystery car. When they were told "a business friend of mine from Chillicothe actually knows the guy it happened to," off they went to Chillicothe. But the business friend didn't know the guy it happened to, he knew a bar-tender who had had the story first-hand from a pal.

You know the rest. The investigators never succeeded in getting any closer to the source of the story, or to the wonder carburetor than you are now. They never got any name for the supposed inventor, or the name of the oil company that supposedly had concealed the patent, or the name of the dealer who had sold the car.

After long investigations, Sun Oil points out several details of importance: in the first place, it is physically impossible for a factory-test car to become mixed up with the production-line cars. They aren't even made in the same plants. In the second place, no industry has been as plagued by rumor as has the oil industry by the insistent rumor of vast savings in fuel consumption. Most of us have seen mysterious contraptions hooked up on cars whose hoods have been raised as they stand in a busy city street, while swift-talking demonstrators orate and sell samples. There are at this moment probably a dozen such get-rich-quick schemes being promoted—at someone's expense.

The National Bureau of Standards has recently tested the current crop of alleged gas economizers. After many years at this testing, the engineers say sadly that they have never discovered a single one with any basic value. A few of them do actually effect a small fuel saving, but they do it by mixing additional air into the carburetor, a simple matter which can be much more efficiently done by adjusting the carburetor itself.

"We have been accused of delaying introduction of more efficient types of equipment," admits the American Telephone and Telegraph Company and adds plaintively, "but the facts do not bear this out; on the contrary, the Bell System has made outstanding advances in the telephone art."

Perhaps the best guaranty that no patents have been suppressed for selfish reasons came during the days of the Temporary National Economic Committee, more familiar as the TNEC. In 1938-39, TNEC held exhaustive hearings on charges that patent rights were being abused; and the make-up of this Committee was not partial to big business. If it could have found evidence of patent sins, it would have been happy. At the same time, a national group of scientists and two national business associations launched the same search, inviting one and all to come and testify. No one did. Not a shred of evidence suggested any suppression of any patent.

International Business Machines has a smoothly functioning method to insure that anything remotely resembling a useful invention gets a fair chance. General Motors has built up for 26 years its New Devices

Section in which it has opened 103,000 files for individuals who have submitted over 145,000 devices. These range from complicated mechanisms and highly technical processes down to a simple suggestion like a light under the hood. Over 3500 persons have suggested directional signals; over 1000 have submitted the idea of headlights that turn with the front wheels.

The company gives every idea careful attention, because you just never can tell. Among the many inventions they have bought since the war are developments in steering linkage, engine-mounting systems, combined starter and accelerator controls, cages for ball bearings and similar highly technical devices.

"We certainly aren't suppressing anything," exclaim the engineers unanimously. They ought to know.

Science News Letter, August 5, 1950

GEOLOGY

Germanium in Washington

► THE richest deposit of the vital war material, germanium, yet found in the United States has been discovered in the earth of parks, playgrounds and other locations in Washington, the nation's capital.

This vein of treasure from the Patuxent formation runs from Baltimore to Richmond, U.S. Geological Survey scientists find.

The deposits contain up to six percent germanium. The highest content previously reported, in the mineral germanite in Africa, was 10%. The District of Columbia deposits also contain vanadium, chromium and gallium.

Discovery of the new germanium deposits is reported by Taisia Stadnichenko, K. J. Murata and J. M. Axelrod in the journal SCIENCE (July 28).

The deposits are in the lignite remains of *Cupressinoxylon wardi*, a tree somewhat

similar to the coniferous family from the Cretaceous era, about 100,000,000 years ago.

Germanium is particularly valuable for electronic instruments. It is a semi-conductor, being intermediate in conductivity between metals and insulators. Photo-electric cells, rectifiers, transmitters and mixers (combination transmitters and amplifiers) are among the important uses for germanium crystals. These crystals are rapidly replacing vacuum tubes for many uses.

Mining operations in such a thickly populated district will make recovery of the germanium in these deposits somewhat of a problem. The germanium and the other elements, however, are recoverable if the need should be great enough. Previous to this discovery, the main source of germanium in the U. S. has been as a by-product recovery.

Science News Letter, August 5, 1950

when taking aureomycin orally. The patient retains enough aureomycin in this way for it to be effective.

Science News Letter, August 5, 1950

On This Week's Cover

► INDUSTRY seeks to harness atomic energy! A dramatic moment was reached as a gas sample was taken following addition of isotopes to molten steel in an experimental foundry.

The metal was made radioactive in order to investigate possible application of tracer technique as an aid to quality control in steel production operations. When a minute amount of radio-isotope is added, the activities and changes of elements in the metal can be more readily traced. It was hoped to determine quantities of elements evolved in the gas and those remaining in the metal.

Research engineer taking the sample (holding long-handled steel rod, padded with asbestos) wears coat, gloves and respirator which comply with safety and health requirements set by the U. S. Atomic Energy Commission to prevent contamination. Respirators are worn in any location where air-borne beta and gamma emitters are present. All operators conducting this experiment wore laboratory coveralls to reduce clothing contamination.

Engineer at left watches as gas enters bottles containing liquid. These instruments are held by floor-type ring stand. The gas-collection apparatus is operated by vacuum pump. Instruments shown on floor measure rate per second gas is received during the evolution period. Funnel-shaped gas intake collector (shown near electric furnace and ladle of molten metal) is held at safe distance by operator. The entire experiment was conducted under a special exhaust hood to prevent spread of air-borne emitters.

Science News Letter, August 5, 1950

MEDICINE

Milk with Aureomycin

► MILK, valued as a food, is gathering new laurels for itself in aureomycin treatment, Drs. Lloyd G. Bartholomew and Donald R. Nichols of the Mayo Clinic report. Used as an agent to control vomiting caused by aureomycin treatment, milk, as compared with other nausea-control agents, allows for the best absorption of aureomycin into the blood stream.

Patients receiving aureomycin are often affected by nausea and vomiting. To counteract the vomiting, aluminum hydroxide gels have been used in the past. However, recent studies demonstrated that the aluminum hydroxide hinders the absorption of the aureomycin into the blood stream.

To control vomiting, one glass of milk given with the aureomycin was most effective.

Of the 50 patients receiving this combination, only four experienced significant nausea and vomiting.

Further studies were carried out to see if the use of milk hindered the absorption of the aureomycin into the blood stream. One group received aureomycin alone, one group received aureomycin with aluminum hydroxide, and one group received aureomycin with milk. The levels of aureomycin in the blood serum after the administration of 750 mg. of aureomycin with 200 cc., or one glass, of milk were approximately the same as the levels obtained when 750 mg. of aureomycin was given alone to fasting patients.

Except in an occasional case, vomiting is controlled by drinking one glass of milk

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