

Split Automobile Engine Said To Cut Fuel Consumption

Washington, (Science Service)—A split automobile engine, operating more economically on only half of its cylinders, is the brainchild of two Michigan inventors.

For their invention, John Dolza of Fenton and William H. Kolbe of Huntington Woods received one of 1,035 patents awarded by the U. S. Patent Office here recently. They assigned their patent, No. 2,878,798, to General Motors Corp., Detroit.

The rationale for the invention is that internal combustion engines are inherently more efficient when each cylinder is running under a high load. At cruising speed the load is relatively light and gas consumption uneconomical.

Fuel Supply Cut

In an eight cylinder car, the new engine operates something like this:

Accelerating the car from a standing position is hard work and requires the power of all eight cylinders. Once the car is rolling easy at a steady speed, the load on the cylinders is relatively light. The fuel supply to four of the cylinders is automatically cut off, placing a greater load on the operating cylinders. The now split engine is running more efficiently with less gas consumption.

In order to pass another car, the driver depresses the accelerator pedal and the inactive cylinders are kicked into operation. This supplies the additional power for fast passing. When the pedal is let up, the split operation is resumed.

Clutter Eliminated

One of radar's disadvantages is that it reflects off nearly every solid object and often causes a confused picture on the scope. One of the major sources of confusion is "ground clutter," reflections from the ground.

The problem has been attacked by Robert J. Howell, Harundale, Md., and John W.

Stuntz, Hyattsville, Md., whose resulting anti-ground clutter invention brought them patent No. 2,879,504. The patent was assigned to the Westinghouse Electric Corp., East Pittsburgh, Pa.

This approach is based on the lengths of reflected radar pulses.

Each pulse sent out by the antenna is a tiny fraction of a second long, and the reflections from distant objects in the sky are essentially the same length. The ground return pulse is longer, however, because the radar wave is reflected from a considerable number of places at various distances.

The invention consists of electronic gates which block out the long reflected pulses and allow only the short ones (reflecting from distant targets) to enter the viewing scope.

Lambert Decker, Ulster Park, N.Y., received patent No. 2,878,641 for a motor which employs two natural inexhaustible sources of energy—the sun and the earth's gravity.

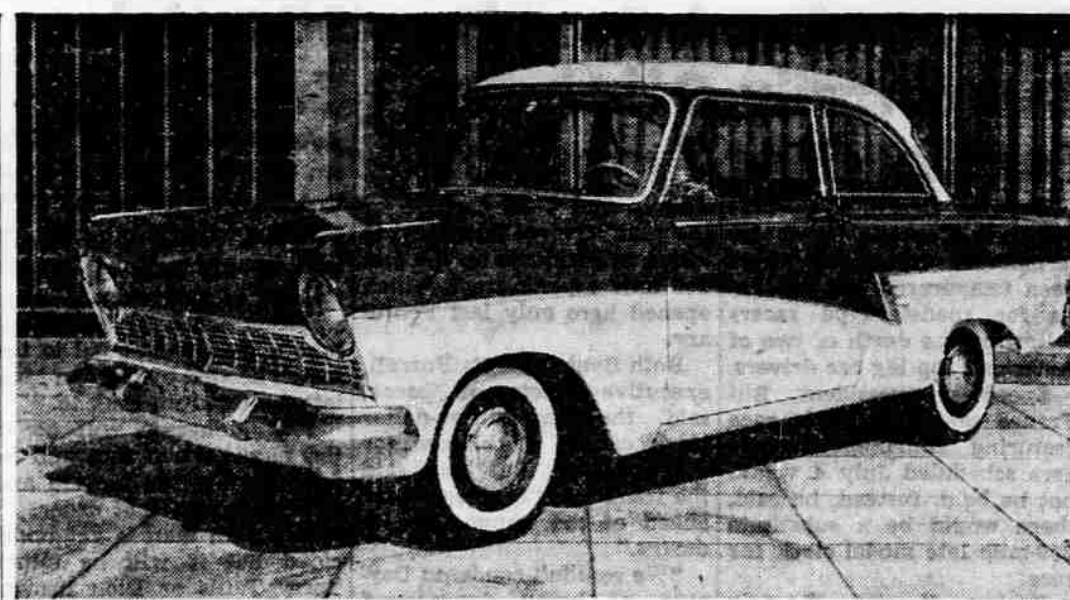
The motor consists of four extendable metal arms placed like the spokes of a wheel. At the end of each arm is a dead weight. In one of the motor's several methods of operation, part of it is kept in sunlight and part in the shade.

When an arm is in the hot sun, its metal expands, pushing the dead weight out in front. This causes a shift in the center of gravity and the weight tends to fall toward the earth. The arm turns into the shade and contracts as the second arm is carried over to the sunlight. The process is repeated for all of the arms and the motor is kept turning.

A small planetarium, which used heated air from a lamp to revolve "planets" around the "sun," brought patent No. 2,878,591 to Arnold H. Harris, Santa Clara County, Calif. The educational device con-

sists of a base, containing a lamp, and a hollow transparent sphere. Heated air from the lamp rises into the sphere, his vanes on one end of suspended metal arms, and causes the arms to revolve. Small balls representing the planets are attached to the other end of the arms and revolve at approximately the same angular speed as their natural counterparts.

A machine that hands out lighted cigarettes at the push of a button has won patent No. 2,878,960 for Peter E. Holsch, Wiesbaden, Germany. The cigarettes are lighted by an electric heating coil, into which they are inserted a short distance. They are then partially ejected and held until the customer pulls them out of the machine.



NEW CONTENDER—A brand new contender in the compact car field is this five-passenger Taunus sedan, to be imported from Germany by the Ford Motor company in June for sale in the United States. Medford Motors will be the local representa-

tive. The Taunus has a 102.5-inch wheelbase and an overall length of 172.2 inches. It is powered by an overhead valve, four-cylinder engine delivering 67 horsepower at 4,400 rpm, and provides up to 35 miles per gallon in fuel economy.

EVEN IN OLE MISS

Oxford, Miss.—(UPI)—A conference on the rehabilitation of alcoholics opened here today, the day on which Mississippi became the nation's only legally dry state.

Tigard High Wins State Math Contest

Eugene — Tigard High school placed first in the Oregon Mathematics contest for 1959 for the fifth time in the eight years of the contest.

Tigard students also scored highest in 1958, 1954, 1953, and 1952.

The contest is sponsored jointly by the Mathematical Association of America and the Society of Actuaries. This year approximately 3,250 high school students representing 79 Oregon schools participated.

School rankings are determined on the basis of total scores of the top three students in each school.

Tigard this year had a total score of 292, followed by Benson Polytechnic of Portland at 198.5, Lake Oswego at 183, Lincoln of Portland at 170.75, Grant of Portland at 153.25, Woodrow Wilson of Portland at 148.5, Beaverton at 142.25, James Madison of Portland at 141, Springfield at 132.25, and Parkrose of

INVITE DALAI LAMA

Washington—(UPI)—Sen. Clifford P. Case (R-N.J.) has urged the administration to invite Tibet's United Dalai Lama to visit the United States as a gesture of sympathy to Communist-plagued Tibet.

Portland at 129. These were the highest 10.

CHECK ON RELATIVES

Washington—(UPI)—Rep. John F. Baldwin (R-Calif.) has introduced a resolution to require all House members to declare whether they have any relatives on their government payrolls and to make public details on government offices pace they rent in their home districts.

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Merit Rating Auto Insurance Plan Due Test in California

Editor's note: This is the first of two dispatches on the merit rating insurance plan for motorists which will be tested for the first time on a large scale in California beginning May 1.

By JACK VANDERBERG
UPI Automotive Editor

Detroit—(UPI)—A traffic ticket may cost you more than the fine assessed by a judge, and an accident may be more costly than merely replacing a dented fender, if a California experiment proves successful.

On the other hand, if you can avoid a traffic ticket or an accident for three years, it will save you money.

The insurance industry will begin its biggest experiment with a program which penalizes the bad driver and rewards the good one when "merit rating" insurance takes effect in California May 1.

If the California experiment proves successful, the plan is expected to be adopted by most insurance companies throughout the United States, according to the National Bureau of Casualty Underwriters

and the National Automobile Underwriters Associations.

These two associations, representing about 200 insurance companies, petitioned the California Insurance Commission for permission to try the experiment to see if merit rating automobile insurance is practical.

20 Per Cent Discount

Under the California plan, drivers with no accidents or moving violations over a three-year period get a 20 per cent discount in their insurance rates. Those with one accident or violation pay about the same rate they would pay under any standard plan. Those with two or more accidents or violations will pay higher rates.

Only moving violations, not parking infractions, are counted against policyholders. Traffic accidents involving \$50 or less in damages and accidents in which a car was damaged while it was parked also are not included in black marks against the policyholder.

This type of insurance actually is not wholly new. It has been tried in various forms over a period of several years and currently is being written by individual companies in several states.

But it is generally considered to be still experimental by the insurance industry, and the California experiment is the biggest of its kind undertaken to date.

One Big Drawback

It could be the key to widespread use of merit rating insurance or the death of it, depending upon the results.

Most insurance companies have been hesitant about trying the plan previously because they foresaw one big drawback.

Most motorists would take the insurance and benefit from its lower rates until they prove to be bad drivers, the insurance companies felt. Once they get into the higher premium rate bracket, they would drop the insurance and switch to a company that provides insurance at a standard rate.

This would mean the companies using merit rating plans would have to pay damages incurred by these drivers in their first big accidents but would not be able to keep them once they had to start paying the penalty. It could mean the companies would not get enough revenues from their low-rate customers to cover the expenses necessary for damages incurred by customers who quit to avoid paying higher rates.

Experience Lacking

So far there has not been enough experience to determine what will happen. If all companies used the plan, and any driver switching from one company to another had to pay a higher rate until he established a record with the second company, it might work out, insurance officials say.

There is some home this type of insurance might further encourage drivers to be more careful. But again, there's not enough experience with it to be sure.

Liz, Fisher Meet Stumbling Block

Hollywood—(UPI)—Actress Elizabeth Taylor and Eddie Fisher are running into all kinds of stumbling blocks, but they're going right ahead with their marriage plans.

The couple learned Tuesday that the rabbi who officiated at Miss Taylor's conversion ceremonies last week when she embraced the Jewish faith will not be able to marry her and Fisher in Nevada next month.

Rabbi Max Nussbaum, whom Miss Taylor, 27, asked to perform the wedding rites, was advised by three Nevada judges that he cannot perform the Nevada ceremony because he does not have a congregation in that state. Rabbi Nussbaum's congregation is in Hollywood.



MEDIUM-PRICED—Designed exclusively for the medium-price field, Mercury for 1959 offers a combination of advanced design, mechanical excellence and superior performance and economy. Medford Motors, 225 South Riverside ave., has announced. Mercury's space-planned bodies provide a new passenger comfort, and has a compound curved windshield with 60 per cent more glass area. Above is a Park Lane sedan.

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But money-saving reasons aside, there are other big reasons for owning a Fiat (if you've ever driven one you'll know what we mean). Fiat is so much more fun and so much easier to drive! You can park one anywhere. And, throughout the car, you get custom quality, quality you expect to find only in cars costing much more. There's so much more, why not ask a salesman!



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