



Come with Me in My '83 (Continued from page 4)

ber of times. All the basic problems have been solved, and I should think that 1983 would see flying automobiles as nearly foolproof as anything designed to leave the earth can be.

Smaller cars, smaller engines to allow more economy, more luxurious-living devices are in the future—but what kind of engines?

It's a cliché to say that the standard internal-combustion, gasoline-burning piston engine is ill-suited to running an automobile, and, like most clichés, it's true. But so much money and genius have gone into the conventional i.c. engine that, basically unsuitable though it is, it has been made to work very well, and it's going to go on working for a long time.

Not forever, though. Alternatives already exist, and some of them are exciting indeed.

Most often mentioned is the gas turbine, demonstrated a few months ago in a coast-to-coast run. The gas turbine is a direct offshoot of the jet engine used in airplanes.

A gas turbine can be half the size of a comparable internal-combustion piston engine, and is much simpler. In essence it works like a water

wheel. Kerosene is burned under compression and the resulting expanding gases, rushing against the blades of a turbine wheel, spin it. Most of the early difficulties—high fuel consumption, dangerous heat—have been overcome, and one American manufacturer intends selling a limited number of turbine cars in 1983.

THE ROTARY internal-combustion engine already runs automobiles in Germany. This engine works by compressing gasoline and setting a spark to it, burning it so fast that it almost explodes. This is not done in a set of gun-shaped cylinders, as in a piston engine, but in a chamber shaped like a flattened circle using only one piston and giving that one a circular motion instead of up-and-down. Hardly bigger than a teakettle, it will power a small four-passenger automobile.

An American manufacturer has worked on a car running on a free-piston engine. This engine is notable for its indifference to fuel, being quite able to burn almost any kind of oil. Explained most simply, the free-piston engine burns fuel between two opposed pistons in the same cylinder

and uses the exhaust gas to drive a turbine wheel.

The fuel cell is running tractors today and is just as capable of running automobiles. The fuel cell produces electricity in great volume by combining oxygen and a fuel such as hydrogen or propane. It is almost perfectly silent.

One more thing: I suspect that 1983's tires will be really remarkable. They'll be absolutely skid-proof on any kind of rain-soaked road, remarkably sure-footed even on ice. They'll last the ordinary first-owner life of the car, and they'll be nearly impervious to road damage. About as many 1983 cars will carry spares as carry starting cranks today.

All in all, guessing what the automobile industry will bring forth in the next 20 years is as exciting as recalling what has been done in the last 20 years. Remember the war year of 1943? Just being able to buy a new car was a dream then, and we hardly conceived the improvements we now take for granted.

It's a sure bet that for all predictions today, we are only catching glimpses of what the auto industry has in store for the next 20 years.

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Left: The DOVER, 21676; long seam moccasin front blucher in black cashmere calf; in Slate, 21682, in Perfecto brown, 31708. Right: The DOVER, 21675; long seam straight tip blucher in black cashmere calf; in Perfecto brown, 31707.