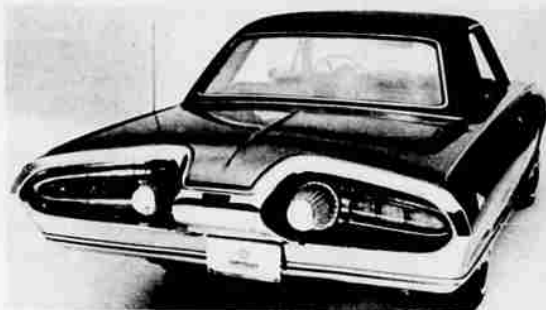




Your car of today is the best available—but engineers and stylists are working to make it even better



Automotive Trends for '64

EVEN WHILE the cars you see in beautiful color on these pages are pouring from Detroit's assembly lines, engineers and stylists are working two, four—and in certain special, heavily guarded areas—10 years in advance.

For these men, the 1964 models have long since been replaced by the fresh but untried ideas on their drawing boards. This does not mean that if you were to fall asleep for 10 years you would awake to find cars unrecognizable. Detroit thinks in terms of the evolutionary rather than the revolutionary change, perhaps because many times in the past it has seen truly fresh new concepts doomed to failure in the market place.

Well, then, what can you expect to see evolve in the future? Anything from a gas turbine engine (Chrysler's gas turbine car is now being consumer-tested) to a new type of body.

Today's auto body, including fenders and all exterior and interior parts, is stamped from sheet steel. This steel is strong and relatively cheap. But it is heavy and, despite elaborate protection processes, it rusts.

WHAT CAN BE DONE? Well, producers of aluminum and even more exotic metals such as titanium think they have the answer. They recognize, though, two basic deterrents: the current generation of auto men is used to thinking in terms of steel, and aluminum does not bond with itself as easily and as cheaply as steel. Lastly, of course, even the light metals are subject to a form of partial corrosion in which their surfaces will "pit" until a self-generating, protective but unsightly coating forms.

This seems to leave the field to plastics, and here some success is already evident. Fiberglass already is used on certain low-volume cars such as the Avanti (Studebaker) and Corvette (Chevrolet). But the manufacturing procedure is time-consuming to the point where, after volume reaches about 20,000 units annually, it becomes cheaper to use steel. Unless there is an unforeseen breakthrough in technology, this plastic is out of the running.

With this in mind, Ford has encouraged one of its most talented engineers, Gordon Buehrig, to study new, untried plastics as a body material. Hopefully, large parts such as a door might be poured in liquid form into a machine and come out a finished item, even to the color.

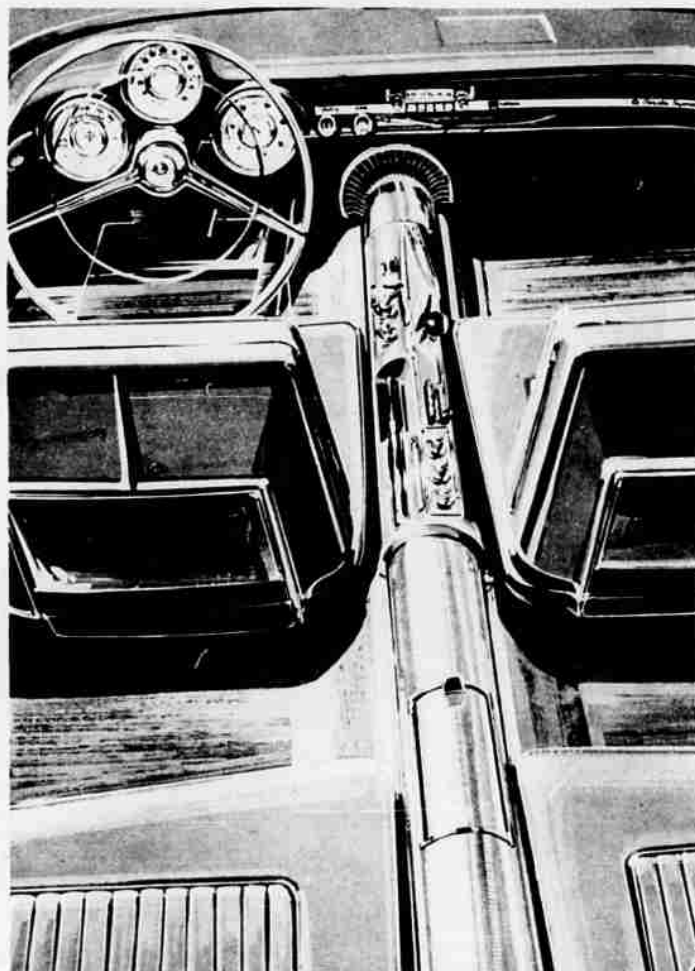
Other dramatic if unseen improvements are around the corner. Engineers foresee the day soon when nearly the whole body can be glued together (some parts already are). You won't see anything different, but you will hear the difference because nothing can squeak and the glue will act as its own sound absorbent, ultimately eliminating the need for upwards of 60 pounds of such expensive add-ons as felt and plastic currently used for this purpose.

EVER NOTICE the doors of your car? Don't they seem overly thick and heavy? Well, part of this bulkiness is needed to house the inflexible window glass when it is lowered. Soon, a flexible glass may be used in these windows. It won't exactly roll up and down like a household shade, but it does bend. Ford is introducing it on the rear windows of some of its '64 convertibles. The big advantage here, besides bending without cracking, is that the glass is more resistant to scratching and discoloration than the plastic used in the past. Used in doors, this glass would save space which could be devoted to more elbow room or slimming down the over-all car width.

Much thought, too, is being given by auto engineers to changing the fundamentals of driving a car. For example, the fraction-of-a-second lapse of time that it takes to move your foot from the accelerator to the brake could be eliminated by combining these separate pedals into one. By hinging one pedal in the middle, you would press forward for acceleration and backward with your heel for braking.

An ideal driving control already has been demonstrated by General Motors. This is an adaptation of the old aircraft "joystick" principle, where forward movement would give acceleration, backward braking, and movement to either side steering. Holding up these developments, though, is not technology but fear that the public cannot erase overnight the habits of several generations.

(Continued on page 11)



Chrysler turbine car has elaborate console but orthodox styling (top).

...and Beyond

By DONALD MacDONALD