

15¢



# SCIENCE NEWS LETTER



THE WEEKLY SUMMARY OF CURRENT SCIENCE • NOVEMBER 18, 1944



Hybrid Baby  
See Page 329

A SCIENCE SERVICE PUBLICATION





# If You're Waiting for a Home Telephone



**I**F YOU are waiting for a home telephone, we think we know how you feel.

You'd like a telephone now— not weeks or months from now. And we'd like to install it for you now.

But due to the war we are short of switchboards and telephones, so there will be unavoidable delays in filling orders for home telephones.

The delay will be as short as we can make it. Meantime, we are genuinely grateful for your patience and co-operation.

**BELL TELEPHONE SYSTEM**



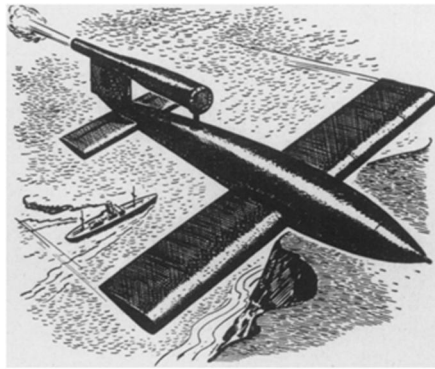
General Electric answers your questions about

# JET PROPULSION



**Q: Is it like a rocket?**

**A:** No. A rocket carries fuel and oxygen to burn it. A jet-propelled plane carries fuel for its G-E engine, but takes oxygen from the air. A rocket might travel to the moon, but a jet-propelled plane could never go beyond the earth's atmosphere.



**Q: Is it like the German robot bomb?**

**A:** A little. The robot bomb uses a crude form of jet propulsion, but it hardly compares with a power plant that can drive a combat plane. The G-E jet propulsion engine powers fast, high flying fighter planes. They are easy to handle.



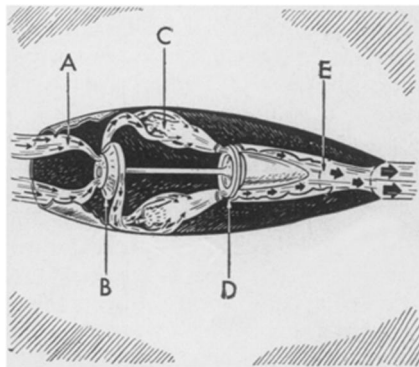
**Q: What was G. E.'s part?**

**A:** G-E engineers developed the jet propulsion engine from a design by Group Captain Frank Whittle of the R. A. F. G. E. was chosen by the Army Air Forces because of G.E.'s experience with turbines and turbosuperchargers.



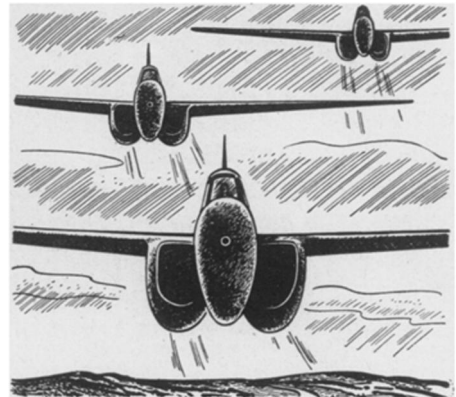
**Q: What makes the jet plane go?**

**A:** The same kind of force that makes a toy balloon scurry when it slips from your fingers. Or that makes a gun kick against your shoulder. Or that makes a rotary lawn sprinkler turn. You see forms of jet propulsion every day.



**Q: How does the engine work?**

**A:** Air flows from "A" through compressor "B" into chamber "C," where it is heated and expanded by burning fuel. This hot gas turns turbine "D," which operates compressor "B." Gas rushing through nozzle "E" propels the plane.



**Q: What does the jet plane look like?**

**A:** It looks much like any other plane, but propellers are missing and there is no sign of conventional engines. Sketch shows the P-59A, built for the Army Air Forces by Bell Aircraft, and powered by two G-E jet propulsion engines.

The General Electric jet propulsion engine is one of hundreds of products made by G.E. for the aviation industry. It is another example of how G-E science and engineering work to supply America's needs—in war and peace. *General Electric Company, Schenectady, N. Y.*

**GENERAL  ELECTRIC**

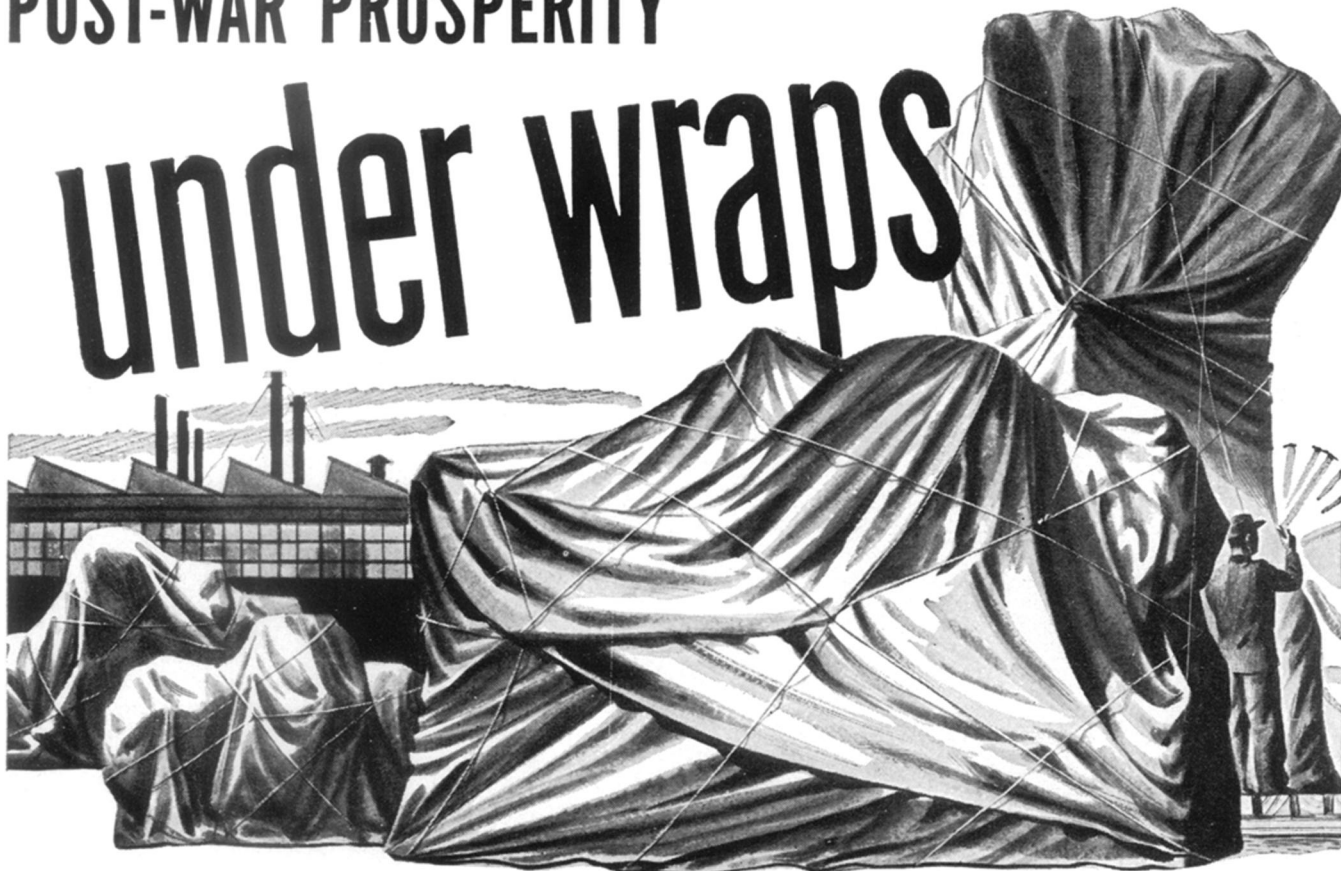
952-616-211

Hear the General Electric radio programs: "The G-E All-Girl Orchestra" Sunday 10 p.m. EWT, NBC—"The World Today" news, every weekday 6:45 p.m. EWT, CBS.

FOR VICTORY—BUY AND HOLD WAR BONDS

## POST-WAR PROSPERITY

# under wraps



**Machines for making passenger cars were stored away when America went to war. Soon they will produce civilian automobiles and jobs again—and here's why they will be better automobiles than ever before!**

► Producing 6,000,000 automobiles a year will provide many a postwar job.

The metals, rubber, fabrics, glass, ceramics, plastics, electrical parts and other materials consumed by such production will help to stimulate many industries.

Every car manufacturer will produce to the limit at first—and for some months after “the wraps” are taken off. All cars will be “easy to sell.” But after

most of the essential replacements are made—what then?

Early in the post-war period, cars will undoubtedly become better looking, more comfortable, easier to handle and drive. But the most significant progress in motorcar design will

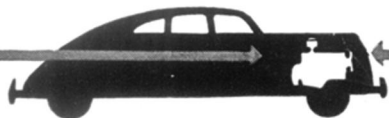
depend—in the future, as in the past—upon the development of engines that get more work out of each gallon of gasoline.

A big step in this direction has already been taken. Immediately after the war the petroleum industry will be able to supply gasoline of far higher quality . . . gasoline that *in engines designed to utilize it* will give more power, more mileage, better performance. Thus, the *foundation* for more efficient engines is already laid.

### ETHYL CORPORATION

Chrysler Building, New York City

*Manufacturer of Ethyl fluid, used by oil companies to improve the antiknock quality of aviation and motor gasoline.*



Wartime progress by America's petroleum industry has paved the way for fundamental progress in post-war automobile engine design.