

15¢

\$5.50 A YEAR

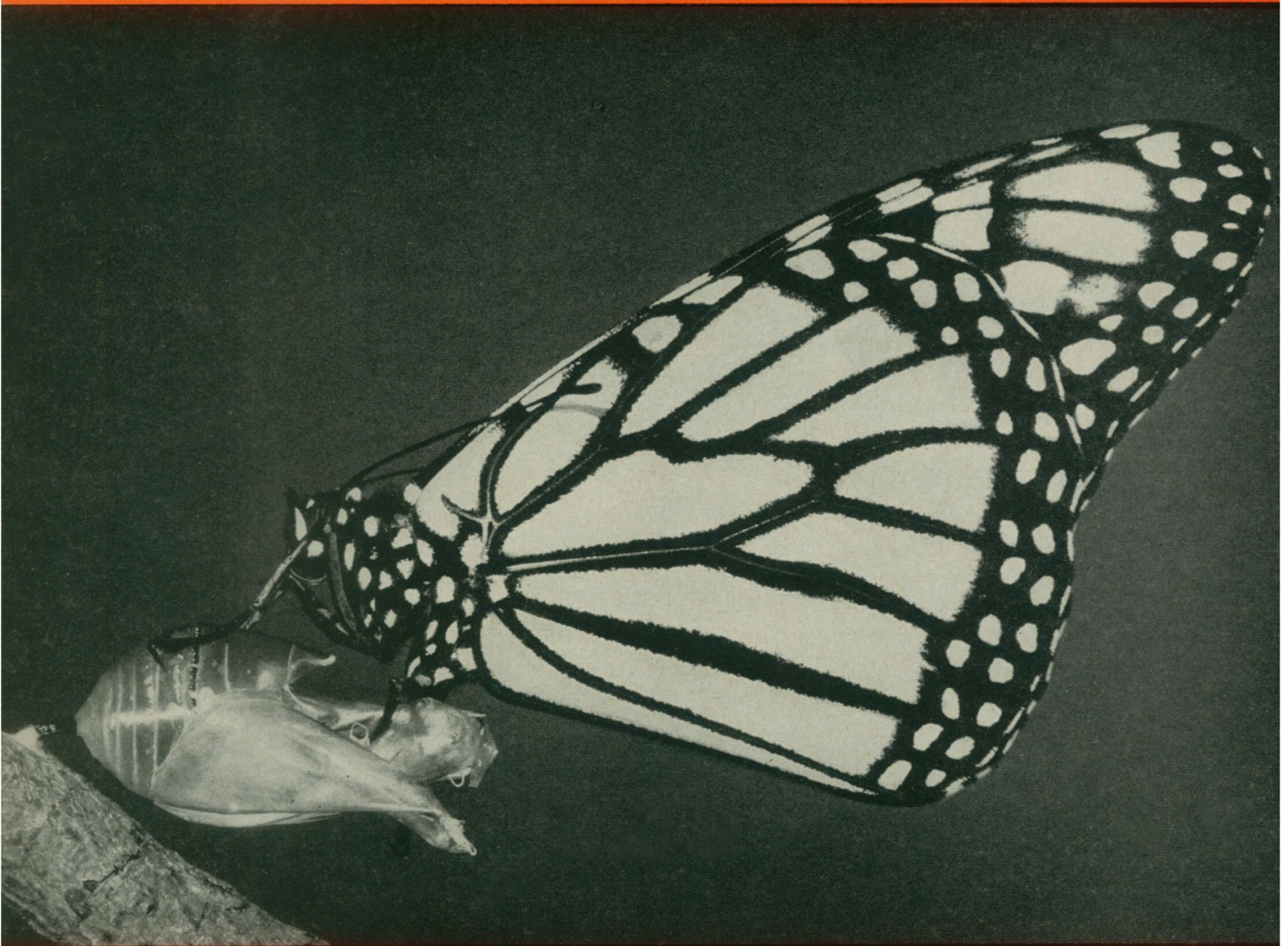
August 1, 1953

VOL. 64 NO. 5 PAGES 65-80

# SCIENCE NEWS LETTER

®

THE WEEKLY SUMMARY OF CURRENT SCIENCE



**Emerging Monarch**

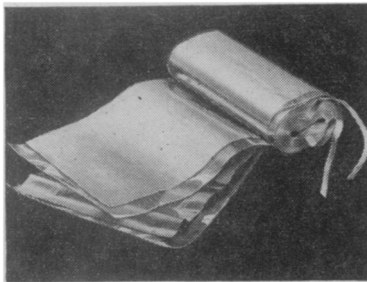
See Page 69

A SCIENCE SERVICE PUBLICATION

**Now a new  
synthetic  
helps  
dial telephone  
service**



*In a large, modern telephone office, two million relay contacts await the orders of your dial. They open and close a billion times a day.*



*Unrolled view (reduced size) of capacitor unit wound with "Mylar." The transparent film is only 0.0005" thick yet stands handling without breaking.*

AMONG the elements that guard your dial telephone service are electrical capacitors. They help prevent the formation of arcs that pit and may eventually destroy relay contacts. But millions more of these capacitors are needed each year. How could they be made less costly?

Bell Laboratories engineers, on the lookout for new materials, became alert to the possibilities of the new "Mylar" polyester film. A product of the Du Pont Company, "Mylar" is chemically the same as Du Pont's "Dacron" polyester fiber used to make fabrics. Bell engineers discovered that it also had remarkable dielectric properties—of just the right kind to help their capacitor problem.

The film takes the place of impregnated paper once used to separate the metal foil electrodes. It is tougher, stands more voltage, needs no impregnation. The new capacitors require no protective housing and are *much* smaller and less costly.

Here is another example of the way America's technology advances through the sharing of knowledge. Just as Bell Telephone Laboratories makes many of its discoveries—the Transistor, for example—available to other companies, so does it adapt the inventiveness of others when it can help your telephone service.



**BELL TELEPHONE LABORATORIES**

Improving telephone service for America provides careers for creative men in scientific and technical fields