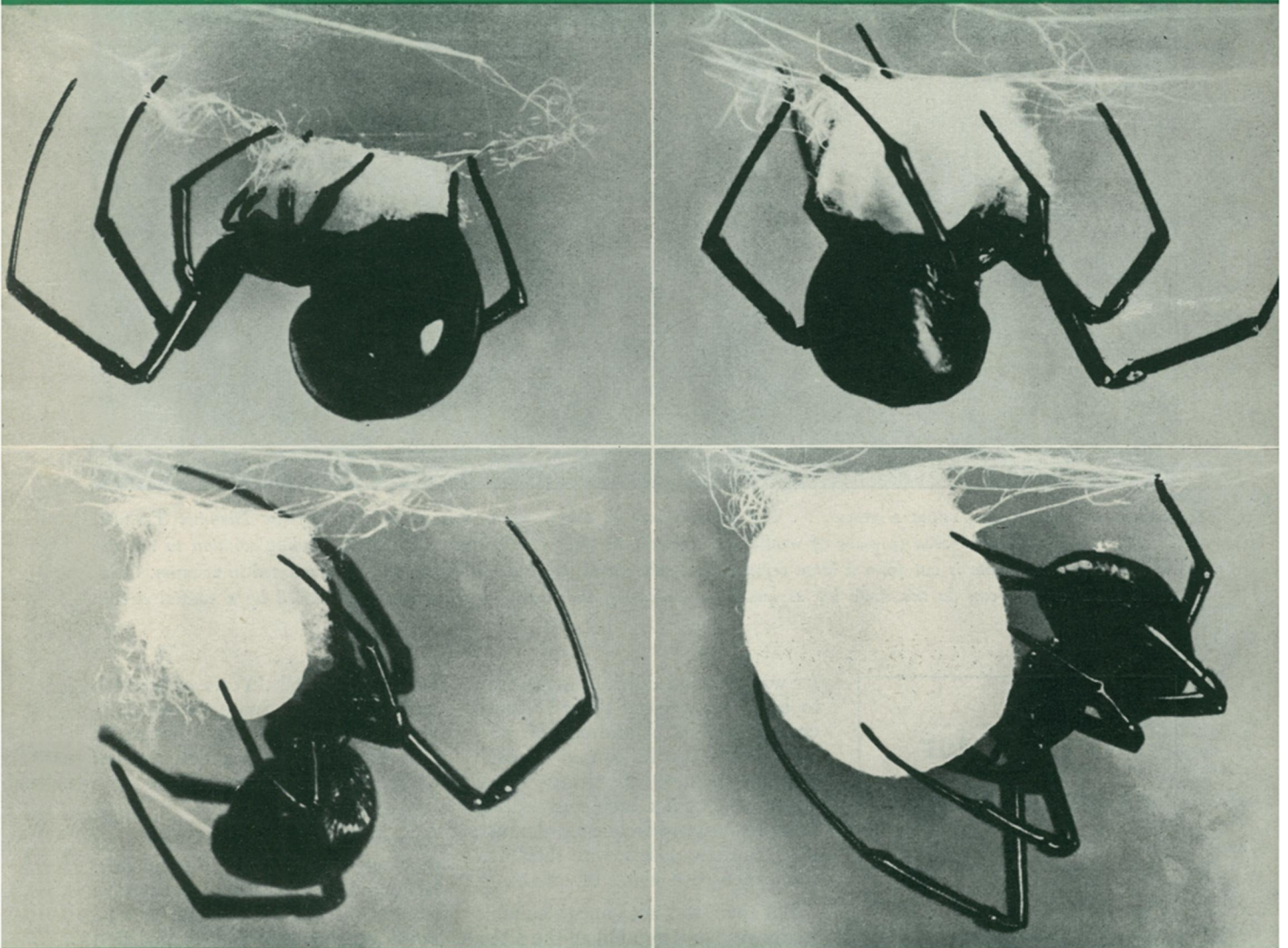


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# SCIENCE NEWS LETTER

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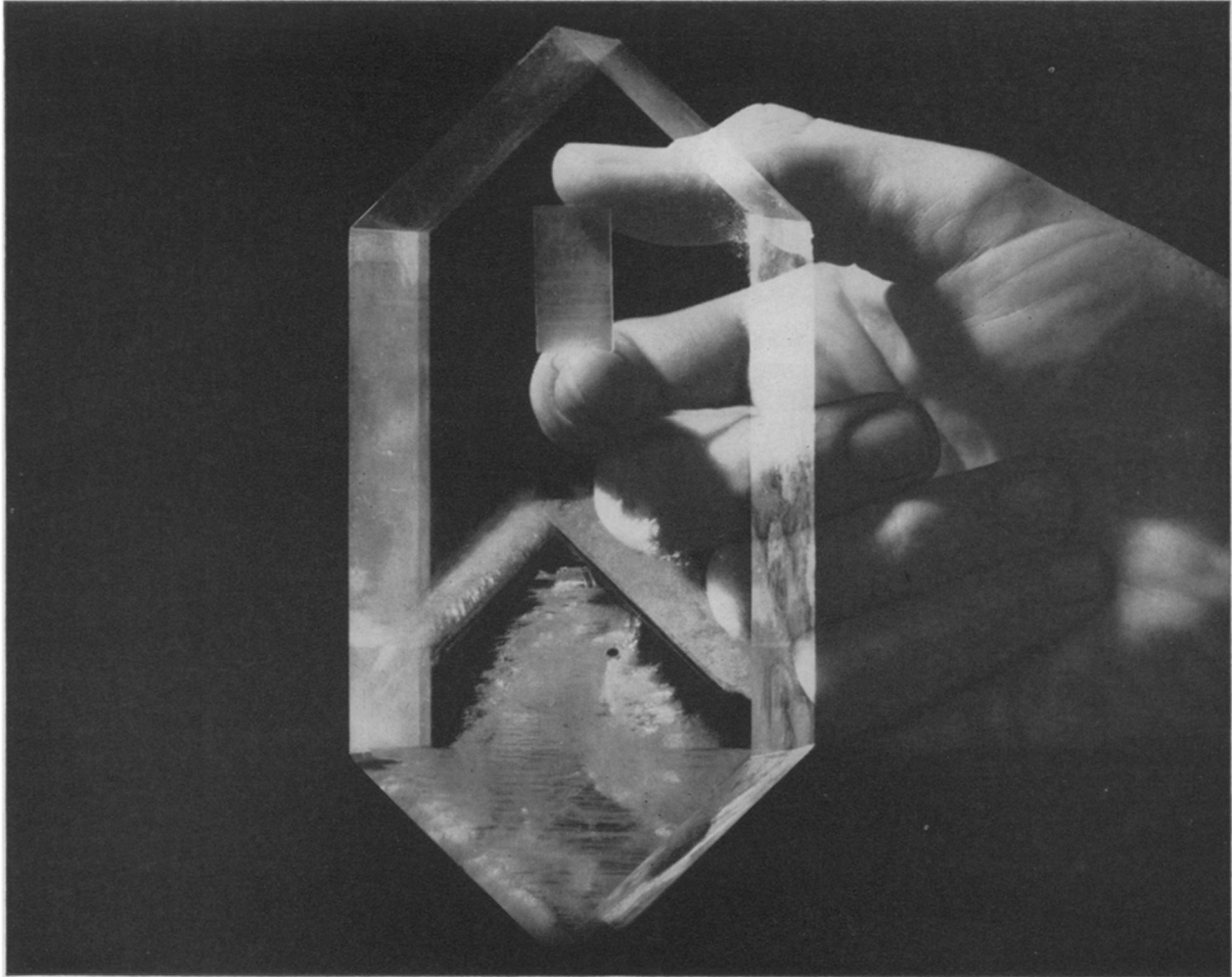
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**Widow**

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A SCIENCE SERVICE PUBLICATION



A CRYSTAL THAT GREW FROM A SEED . . . The large crystal in the foreground is an EDT (Ethylene Diamine Tartrate) crystal. It started from a seed (a piece of mother crystal) and in three months grew in a slowly cooling solution to the size shown. The small plate is cut from a large crystal, then gold-plated for electrical connection and mounted in vacuum. Cultivated EDT crystals can do the same job as quartz in separating the nearly 500 conversations carried by a coaxial circuit.

## Crystals for Conversations

AT WAR'S END, the Bell System began to build many more Long Distance coaxial circuits. Hundreds of telephone calls can be carried by each of these because of electric wave filters, which guide each conversation along its assigned frequency channel. Key to these filters was their frequency-sensitive plates of quartz.

But there was not enough suitable quartz available to build all the filters needed. Bell Telephone Laboratories scientists met the emergency with

cultivated crystals. Years of research enabled them to write the prescription at once — a crystal which is grown in a laboratory, and which replaces quartz in these channel filters.

Now Western Electric, manufacturing unit of the Bell System, is growing crystals by the thousands. Many more Long Distance telephone circuits, in urgent demand, can be built, because the scientists of Bell Laboratories had studied the physics and chemistry of artificial crystals.



**BELL TELEPHONE LABORATORIES**

EXPLORING AND INVENTING, DEVISING AND PERFECTING, FOR CONTINUED IMPROVEMENTS AND ECONOMIES IN TELEPHONE SERVICE



if gasoline were sold in cakes...

all the information you'd like to know about the ingredients it contained could be printed right on the wrapper. However, gasoline is usually piped directly into your car from a pump—so it isn't practical to label each gallon. Instead, oil companies put "Ethyl" trade-marks on their pumps to show you at a glance that their best gasoline contains "Ethyl" antiknock fluid. This important ingredient, which is made by the Ethyl Corporation, is mixed with gasoline to step up power and performance. To get more out of your car, buy *your* gasoline from pumps marked with the familiar yellow-and-black "Ethyl" emblem.

Ethyl Corporation, New York.

look for the "ETHYL" trade-mark

