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SCIENCE NEWS LETTER

®

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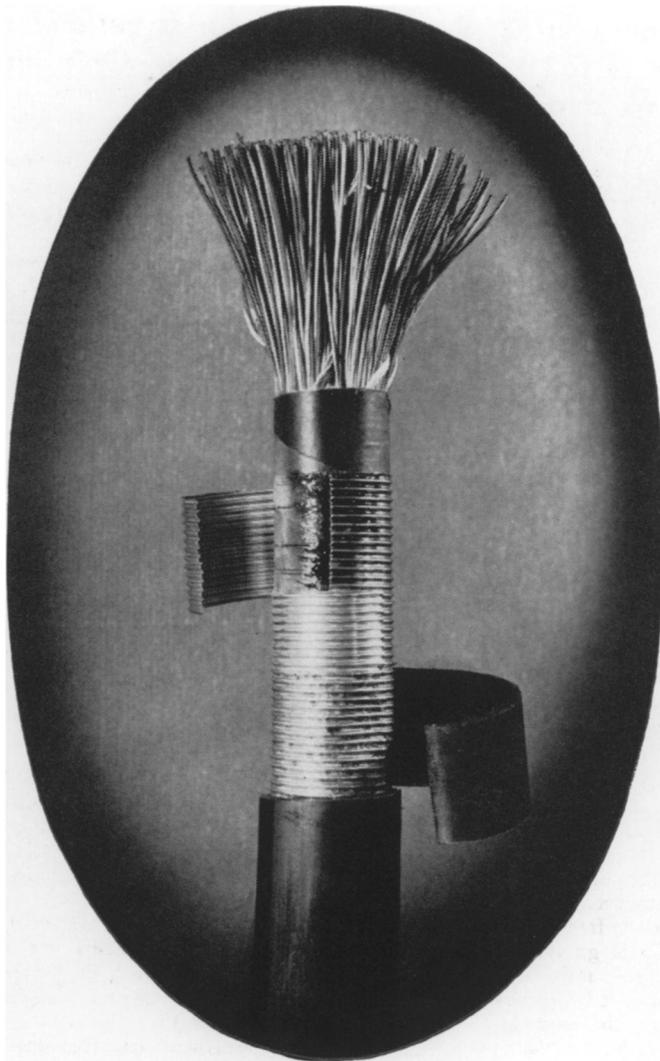
ALPETH

NEW WORD ON TELEPHONE CABLES

Lead makes an excellent sheath for telephone cables — sixty years and thousands of miles in service have well proven that. But lead is useful in other ways—storage batteries and paint, to name only two. So the telephone industry shares the limited available supply with other claimants.

Before the war when there was no lead shortage, Bell Laboratories engineers sought to develop better and cheaper cable sheaths. An ideal sheath is strong, flexible, moisture-proof, durable and must meet specific electrical requirements. No single material had all those virtues, so thoughts turned to a composite sheath, each element of which should make a specific contribution to the whole.

Various materials and combinations were studied. Desirable combinations that satisfactorily met the laboratory tests were made up in experimental lengths, and spent the war years hung on pole lines and buried in the ground. After the war, with an unparalleled demand for cable and with lead in short



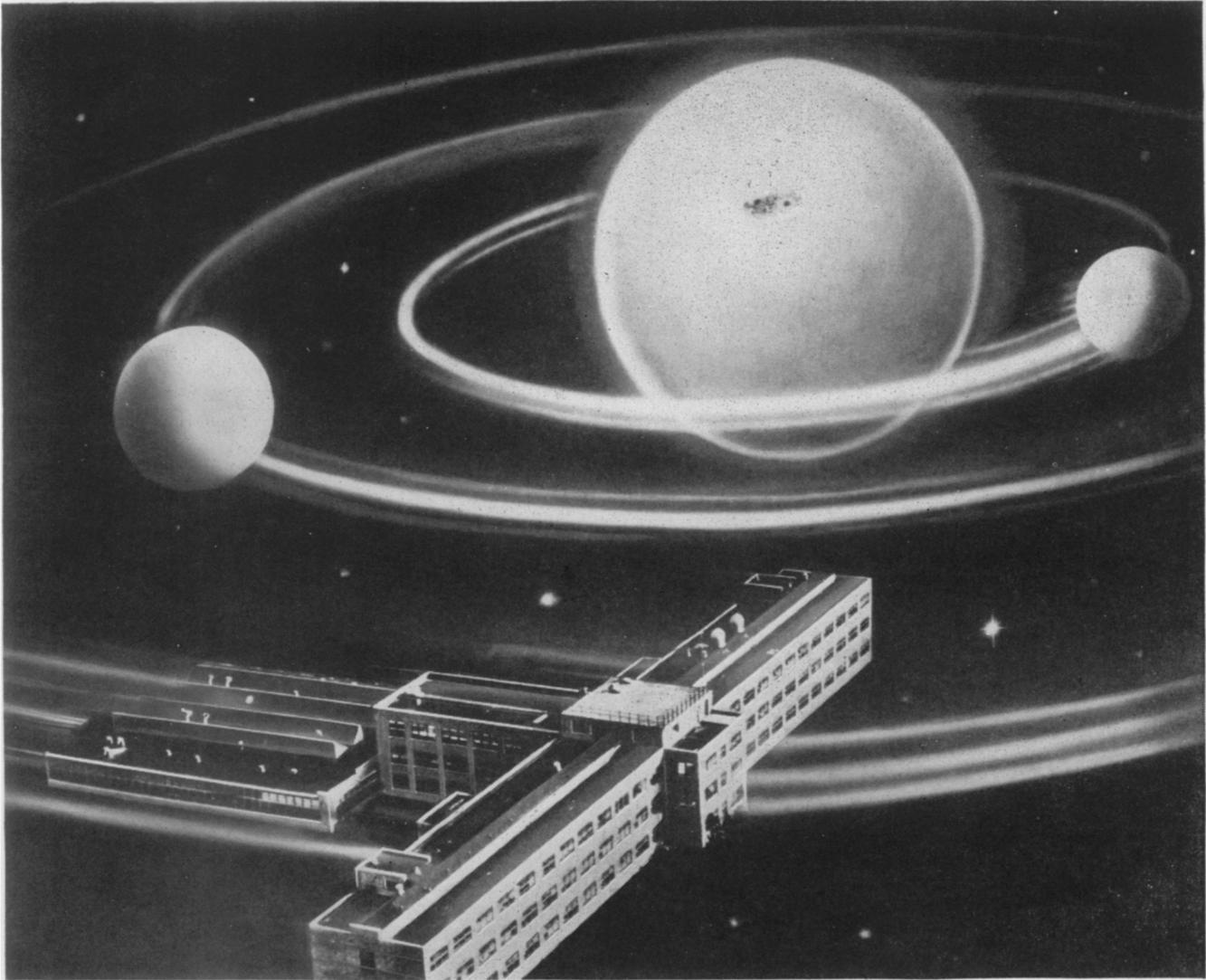
supply, selection was made of a strong composite sheath of *AL*uminum and *PolyETH*ylene. Now Western Electric is meeting a part of the Bell System's needs with "*ALPETH*" sheathed cable.

Meeting emergencies — whether they be storm, flood or shortage of materials — is a Bell System job in which the Laboratories are proud to take part.

BELL TELEPHONE LABORATORIES

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





"Sunspot" research, by RCA engineers, helps radio communications to dodge interference from magnetic storms. RCA Laboratories is a center of radio and electronic research.

93,000,000 miles of laboratory space

A cyclonic spot erupts on the face of the sun, and—here on earth—we feel it. Sunspots cause "magnetic storms," which disrupt radio communications.

What can be done about it? Research, during which RCA scientists and engineers "worked" by instrument on the sun—93,000,000 miles away—offers an answer.

For many years, science related magnetic storms to sunspots. An accurate way of forecasting these disturbances was needed.

RCA scientists took a new tack. They noted that interference was most intense when sunspots were in a certain "critical area." Location and activity were observed to be more important than size.

Using this knowledge, RCA communications engineers accurately forecast the beginning and end of magnetic storms. They have established a daily magnetic storm forecasting service which is distributed like weather reports throughout the world. Transmission of messages can

be arranged over circuits or paths that will dodge interference.

Such a pioneering spirit in research gives efficiency of service and leadership to all products and services bearing the names RCA, and RCA Victor.

. . .

When in Radio City, New York, you are cordially invited to see the radio, television and electronic wonders at RCA Exhibition Hall, 36 West 49th Street. Free admission. Radio Corporation of America, RCA Building, Radio City, N. Y. 20.



RADIO CORPORATION of AMERICA