

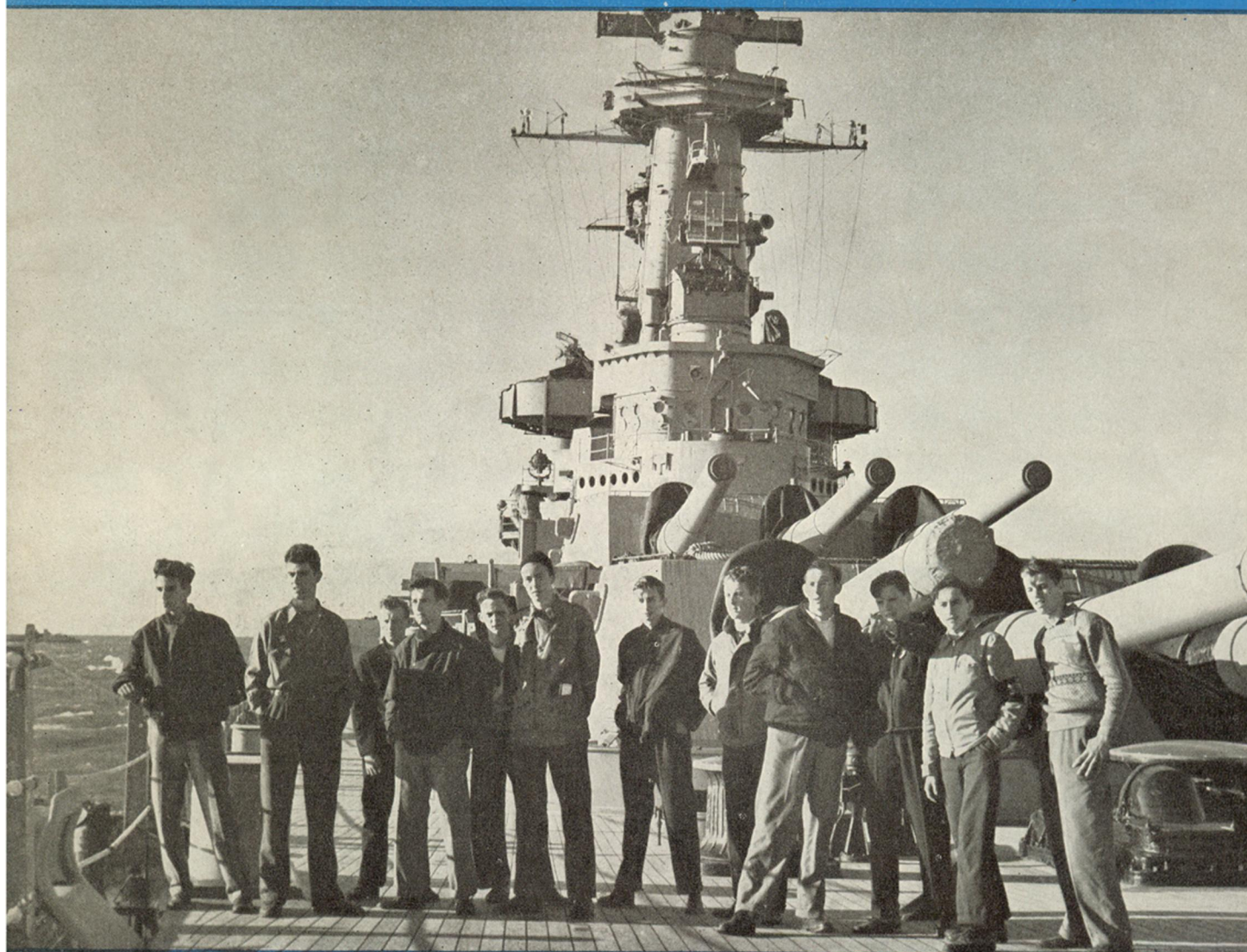
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SCIENCE NEWS LETTER

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Navy Science Cruisers

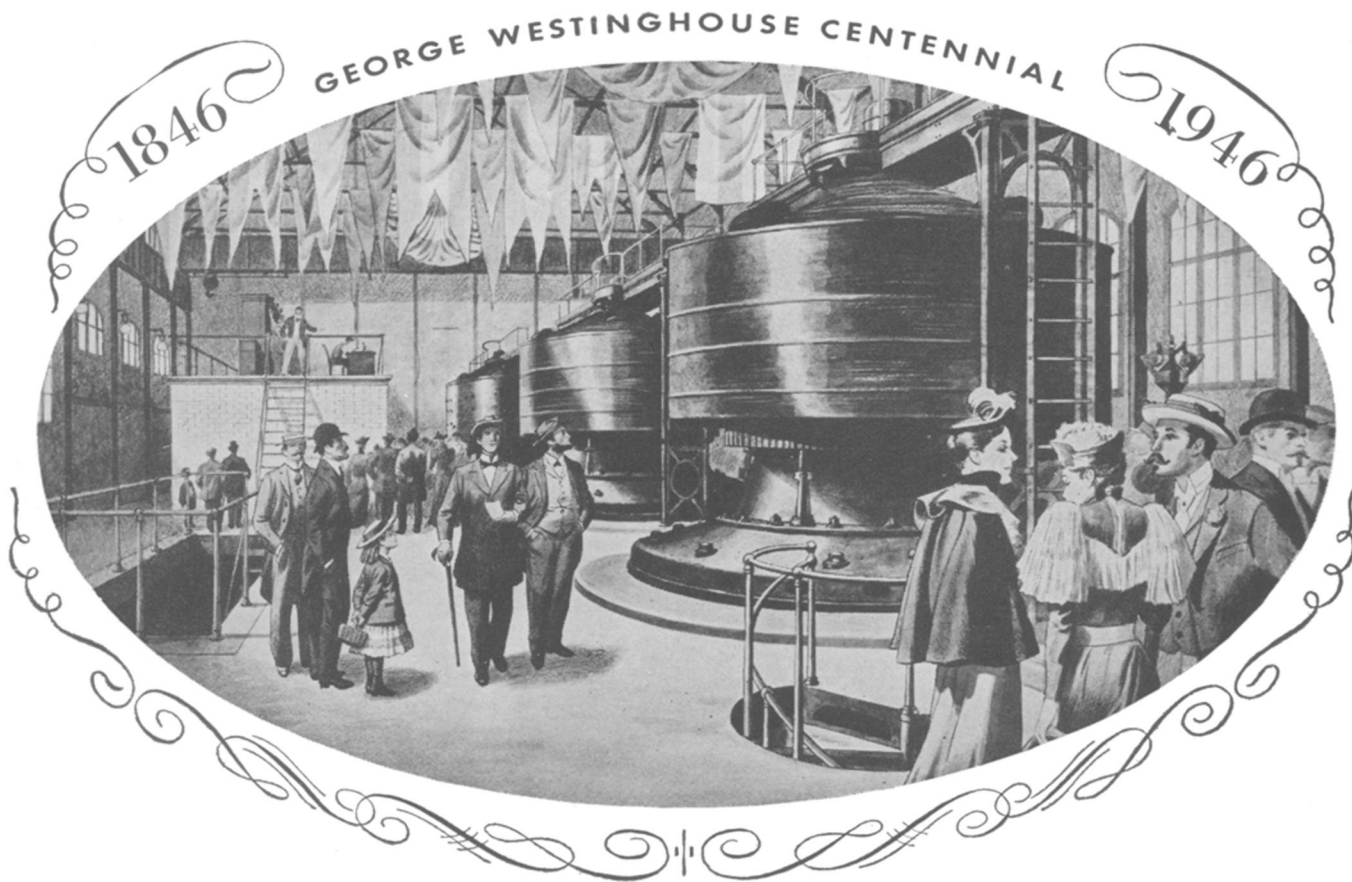
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A SCIENCE SERVICE PUBLICATION

1921

TWENTY-FIFTH ANNIVERSARY

1946



Harnessing the Power of Niagara

For thousands of years, water had roared over Niagara Falls at the rate of about 200,000 cubic feet per second —representing enough power to supply the annual requirements of 24,000,000 average homes. This enormous power continued to go to waste until...

In the late 1880's, a group of world-famous engineers began to study the problem of harnessing the vast power of Niagara Falls.

A bitter controversy raged for years as to whether *alternating* or *direct* current should be used. George Westinghouse, the world's greatest authority on alternating current, vigorously supported the *a-c* system.

Then, at the Chicago World's Fair in 1893, Westinghouse demonstrated the unqualified supremacy of the *poly-*

phase system for the generation and transmission of alternating current electricity.

In October of that year George Westinghouse won his famous "battle of the currents"—and received the contract for three 5,000-horsepower polyphase generators to be installed at Niagara Falls.

These world's largest a-c generators had to be engineered from the ground up. But within two years, the three mammoth units were placed in operation. And a year later electric power was supplying the needs of Buffalo, N.Y. . . . 20 miles away!

It was a major victory for mankind as well as for George Westinghouse—for it set the pace for power development all over the world.



Westinghouse
PLANTS IN 25 CITIES OFFICES EVERYWHERE

TODAY—The Westinghouse Electric Corporation supplies much of the world's needs for the generation, transmission and utilization of electric power. For instance, throughout the world there are Westinghouse water-wheel generators with a total capacity of more than 12,000,000 kva. In addition, steam and engine-driven generators, with a combined capacity of *many more million kva*, proudly bear the Westinghouse name plate.

Tune in: TED MALONE, Monday, Wednesday, Friday, 11:45 am, EST, American Network.

The hat that became a headset . . .



Telephone operators in New York, Atlanta and Montreal wore the strange head-dress you see pictured above. It's a specially devised gauging instrument — Bell Laboratories scientists used it to measure head contours in designing the new operator's headset.

With the new set, the telephone user can hear the operator more clearly, and she in turn hears better too—through the improved receiver and transmitter. Her voice enters the transmitter at an even level because, as she turns, the

mouthpiece moves with her. Neckstrap and horn are eliminated. The whole thing weighs less than six ounces.

The new Bell System headset brings together the latest techniques in telephone voice transmission and the ideas of the operators themselves. It offers them comfort, convenience, and electrical efficiency.

Out of new knowledge has come this novel head telephone fitted to the operator and designed to improve your telephone service.



BELL TELEPHONE LABORATORIES



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