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Thus spectrography helps in controlling inspection. It keeps tough fighting steels tough, helps in development of new fighting metals. Spectrography is used too in other fields . . . chemicals, foodstuffs, vitamins. It speeds research, control, and analysis. Today, spectrography is helping to build the tools of Victory as in peacetime it helps to make better cars and better breakfast foods.

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<th>Price</th>
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1-CYSTINE

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<td>1 pound bottle</td>
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d1-METHIONINE

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<td>100 gram bottle</td>
<td>60.00</td>
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BRRRRRR... A polar bear would be right at home at 20⁰ below zero in the Westinghouse "igloo" at East Pittsburgh. This cold chamber is 1500 times as large as the average electric home refrigerator. Here, Westinghouse engineers test ice-coated circuit breakers and other electrical switching equipment, to guarantee operation under worst winter conditions.

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Chemical analyses—right now!

Above is the laboratory model of the Westinghouse mass spectrometer, which sorts out dissimilar molecules according to their mass, and does it almost as fast as you can snap your fingers.

The mass spectrometer provides a new way to get the quick, accurate analyses that are needed to maintain precise process control. Take the synthetic rubber industry, for example. Formerly, five men took as long as three days to complete necessary chemical tests in the processing of artificial rubber—which meant that the results were often too late to be useful.

The new electronic "chemist," the Westinghouse mass spectrometer, now makes these tests in about 15 minutes.


Tune in John Charles Thomas, NBC, Sundays, 2:30 p.m., E.W.T.
Presbyopic eyes had been looking through convex-lensed spectacles for 300 years when Jan Lippershey took his famous look. Only after glasses had been developed to correct near- and far-sightedness did fate place the right combination of convex and concave lenses in the hands of this Dutch spectacle maker.

In October of 1608, Lippershey applied for a 30 year patent on the first telescope. Although his petition was denied, he received 900 florins each for several binocular adaptations and a liberal retainer fee which gave the State exclusive rights to his services.

No picture of the first telescope exists, and recorded descriptions are vague. It probably was about 18" long, had a 1 3/4" aperture, magnified three or four diameters and had an extremely restricted field of view.

Crude though it was, it started human vision on a romantic journey. Today that journey continues through new lenses and prisms into new worlds of light and life and distance. Guiding it are busy men in industry, in education and in the armed forces...men with whom Perkin-Elmer has been privileged to create new milestones in optical science.

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BUTADIENE
for the Government's Synthetic Rubber Program
(INSTITUTE, W. VA. PLANT)

A LITTLE OVER A YEAR AGO* the first tank car of butadiene was shipped from the Government's large integrated rubber project at Institute, W. Va. This historic shipment came from the immense butadiene plant which was designed and built by CARBIDE AND CARBON CHEMICALS CORPORATION for the Government's Defense Plant Corporation—and is being operated by this Unit of UCC, for the Rubber Reserve Company.

FIRST YEAR'S PRODUCTION OVER THE RATED CAPACITY—that is the record of this huge 80,000-ton-per-year plant during its first twelve months! This has been accomplished in spite of the many inherent problems that had to be solved in starting a wholly new project of this magnitude.

Over 8/10 of a short ton of butadiene is required to make about one long ton of Buna S type synthetic rubber. Butadiene from this plant during the past year has provided more than 90,000 long tons of synthetic rubber for the Nation's requirements, both military and essential civilian. The delivery of this all-important ingredient also has made possible early production of synthetic rubber under the Government's program.

NOW HUGE BUTADIENE PRODUCER—although originally designed to produce 80,000 tons annual capacity, the Institute plant is now delivering butadiene at a rate of more than 100,000 tons per year. An identical plant using Caridbe's process was put into operation by the Koppers United Company in September, 1943, at Kobuta, near Pittsburgh, Pa.

OVER 75% OF THE TOTAL PRODUCTION OF BUTADIENE for the Government's synthetic rubber program in 1943 came from the alcohol process developed by CARBIDE AND CARBON CHEMICALS CORPORATION.

In addition to the plant at Institute, Carbide made available plans for the large plant at Kobuta, which was built and is being operated for the Government by Koppers United Company.

CARBIDE AND CARBON CHEMICALS CORPORATION also has designed and built for the Defense Plant Corporation, and is operating for the Rubber Reserve Company, another large butadiene plant at Louisville, Ky.

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*The first tank carload of butadiene from Institute was shipped on February 18, 1943—less than one month after Unit No. 1 of the four large butadiene-producing units had started operating. Subsequently, Unit No. 2 started producing in March, Unit No. 3 in April, and Unit No. 4 on May 25, 1943.

Business men, technicians, teachers, and others are invited to send for the book O-3 "Butadiene and Styrene for Buna S Synthetic Rubber from Grain Alcohol," which explains what these plants do, and what their place is in the Government's rubber program.
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PRESENT AND POST-WAR HEALTH PROBLEMS IN CONNECTION WITH PARASITIC DISEASES

By Dr. WILLARD H. WRIGHT
CHIEF OF THE DIVISION OF ZOOLOGY, NATIONAL INSTITUTE OF HEALTH, U. S. PUBLIC HEALTH SERVICE, BETHESDA, MARYLAND

As a nation without imperialistic aims and with few colonial possessions, we have viewed with considerable nonchalance the tropical disease problems of other countries. Now that we are engaged in an all-out war on many fronts, we are frantically endeavoring to absorb and put into practice knowledge of these exotic diseases. For the moment, most of these problems are military problems, but sooner or later they are apt to become public health problems of direct concern to our civilian population.

Our past military campaigns in tropical areas have been confined to small-scale operations in Cuba, Puerto Rico, the Philippines and briefly in Central America. Now our troops are serving by the thousands in such hotbeds of exotic disease as Africa, India, China and the South Pacific. While every effort is being made by our military authorities to practice effective preventive medicine in these areas, it is inevitable that some of our troops will contract one or more tropical diseases and will return to the United States as infected individuals. Already the homeward trek of these men has begun. The return of military personnel from all these areas will probably constitute a cumulative introduction of tropical disease equaled or exceeded only by such introduction during the slave-trading days. It is well, therefore, to consider some of the possibilities which confront us and to ponder the relationship of these possibilities to civilian health.

Some of the diseases of greatest importance from a military standpoint and possibly from a subsequent civilian standpoint are those caused by protozoan and