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SCIENCE NEWS LETTER



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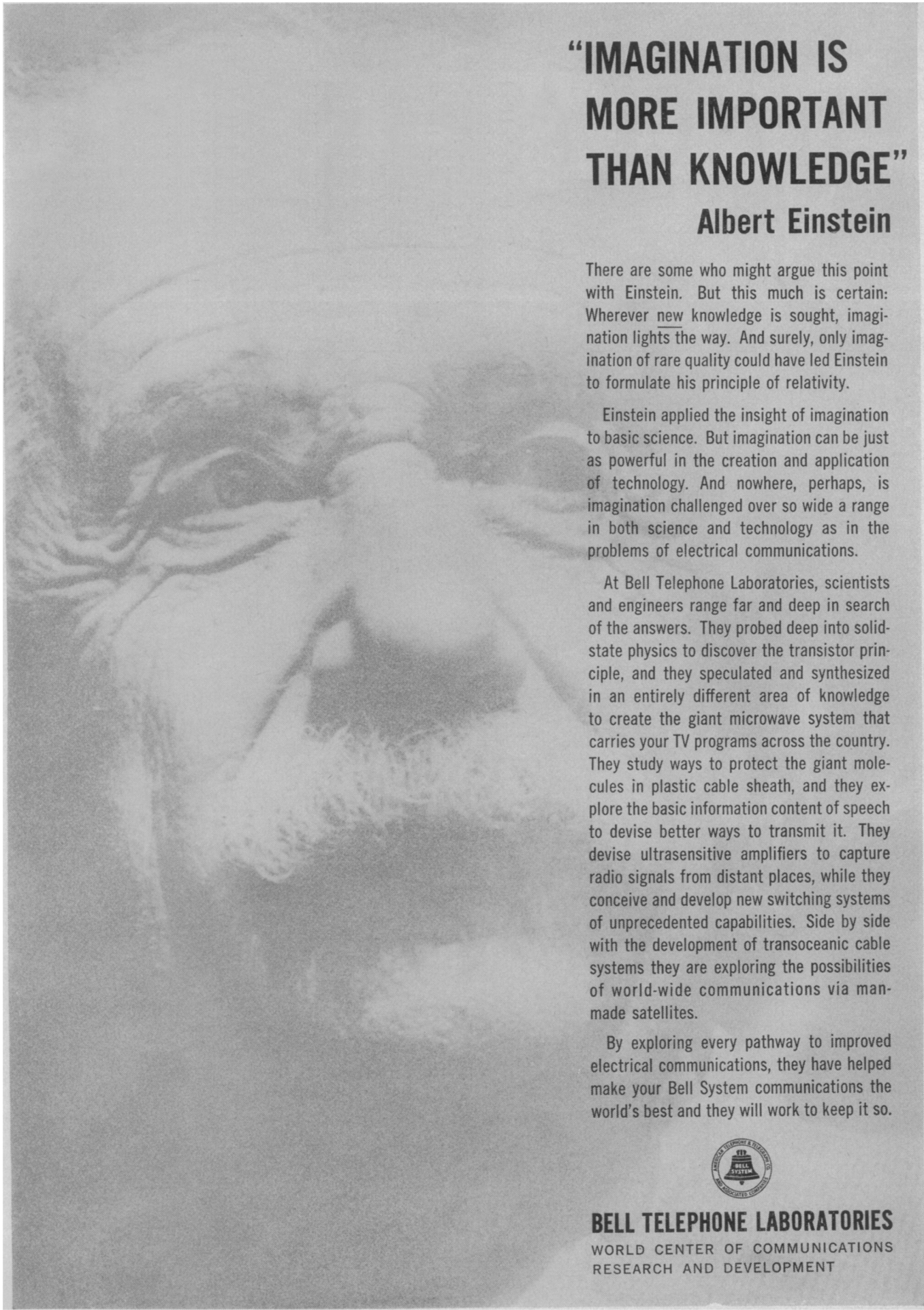
THE WEEKLY SUMMARY OF CURRENT SCIENCE



1,000,000-Ton Iceberg

See Page 134

A SCIENCE SERVICE PUBLICATION



**“IMAGINATION IS
MORE IMPORTANT
THAN KNOWLEDGE”**

Albert Einstein

There are some who might argue this point with Einstein. But this much is certain: Wherever new knowledge is sought, imagination lights the way. And surely, only imagination of rare quality could have led Einstein to formulate his principle of relativity.

Einstein applied the insight of imagination to basic science. But imagination can be just as powerful in the creation and application of technology. And nowhere, perhaps, is imagination challenged over so wide a range in both science and technology as in the problems of electrical communications.

At Bell Telephone Laboratories, scientists and engineers range far and deep in search of the answers. They probed deep into solid-state physics to discover the transistor principle, and they speculated and synthesized in an entirely different area of knowledge to create the giant microwave system that carries your TV programs across the country. They study ways to protect the giant molecules in plastic cable sheath, and they explore the basic information content of speech to devise better ways to transmit it. They devise ultrasensitive amplifiers to capture radio signals from distant places, while they conceive and develop new switching systems of unprecedented capabilities. Side by side with the development of transoceanic cable systems they are exploring the possibilities of world-wide communications via man-made satellites.

By exploring every pathway to improved electrical communications, they have helped make your Bell System communications the world's best and they will work to keep it so.



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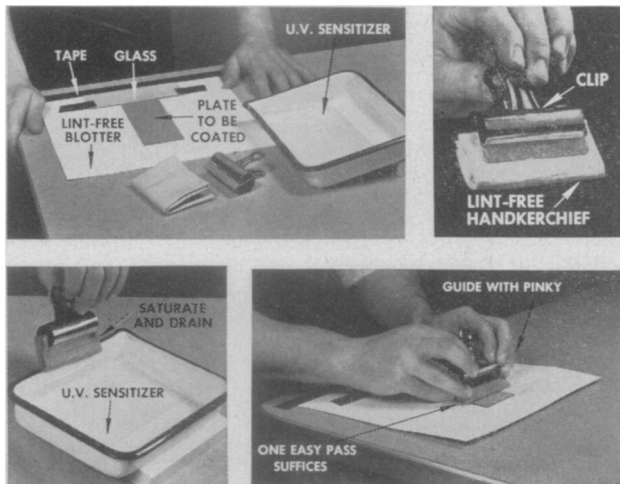
Kodak reports on:

how you too can crack the 2500Å barrier . . . a book for those who plan to change worlds . . . fish, raisins, chicken, bananas, and distilled acetylated monoglycerides

Ultraviolet swab

Even the sports pages are carrying help-wanted ads for infrared experts. Infrared is riding high. Let's not forget that at the other end of the visible spectrum the old ultraviolet is still there.

In order to stir up interest in the ultraviolet, we shall show you how to sensitize photographic plates below 2500Å, the wavelength down to which all photographic emulsion responds but below which the gelatin of the emulsion starts to intercept the energy so that people don't bother as much as they should with the spectral lines and other interesting phenomena down there.



Working thus in the darkroom, you can extend the sensitivity of any of the numerous Kodak Spectroscopic Plates down to 1000Å, even those sensitive to 1.2μ in the infrared. To find out what sensitizations are available for extending, and how to make up U-V sensitizer, write Eastman Kodak Company, Special Sensitized Products Division, Rochester 4, N. Y.

The student who took advice

So much buy, buy, buy on all sides! Many a scientific man says the clamor is too overwhelming. Perhaps it is unwise to irk him further by suggesting that his own kind bears no small part of the credit for having caused the din to be set up.

In the early 1900s Sir William Ramsay, the physical chemist who discovered the noble gases, strongly advised a student of his named Mees to get a job in industry instead of following the traditional scientist's livelihood of teaching. The young fellow therefore went to work for Wratten & Wainwright, a small firm that made photographic plates. Actually, until not so long before, Mrs. Wratten, the senior partner's wife, had been making them in her kitchen, quite successfully flowing the emulsion from a teakettle onto glass.

But young Mees brought science into the operation. The union of science and industry was blessed with new products for Wratten & Wainwright. They attracted the attention of Mr. Eastman, of Kodak, who decided it would be good for his business, too, to apply some science to it. Instead of emulating Wratten & Wainwright, he bought their business and brought Mees to Rochester, N. Y., U.S.A., as Kodak's research director. This happened in 1912.

After 43 years in the job, Mees retired and wrote a book about his experiences in nurturing the chemistry and physics of one industry to churn out the stuff that has to be bought,

This is another advertisement where Eastman Kodak Company probes at random for mutual interests and occasionally a little revenue from those whose work has something to do with science

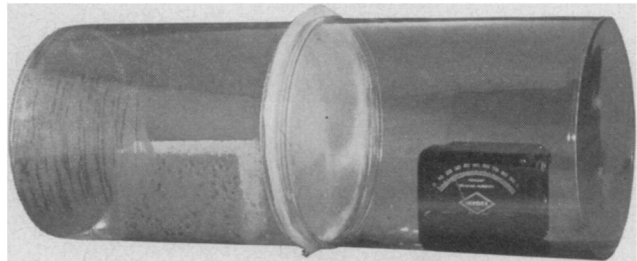
bought, bought. His long, happy, and fruitful life ended last year. This month the book will be coming out under the title "From Dry Plates to Ektachrome Film" (Ziff-Davis Publishing Co., New York, \$5.95 at many camera shops). It is recommended to those who want a very grown-up viewpoint on photography and its technology. It may also prove instructive to scientists in general who have made or are contemplating a switch from the world of scholarship to the world of commerce.

New and edible

The general public doesn't realize that we produce edible products with calories in them that a person can grow on and do pushups with. The newest of them bear the colorless designation "distilled acetylated monoglycerides." In front of the ungainly generic name we stick the trademark "Myvacet," which is easier to remember and shows we mean business. So far the business is confined to operating a small pilot plant and sending out technical salesmen to get food laboratories to accept samples with which to play and plan.

First the salesmen establish the distinction from *unacetylated monoglycerides*, another and equally real food which we have been producing by the ton for years as a texture-improver for fat-based foods and more recently for starch-based ones.

Then the salesmen undertake their mission of inspiration. They show this picture to fix in mind that "Myvacet" makes



a most effective barrier to water vapor. It also bars oxygen but not carbon dioxide. The solid "Myvacet, Type 5-00"* is far more flexible when cold than paraffin wax, which it resembles in feel and appearance but not in chemical nature.

The liquid "Myvacet, Type 9-40"*** is a better gear and bearing lubricant, even under high pressures, than many petroleum-based products, yet, like the solid, it is unquestionably and officially*** edible and at the same time outlasts previously known edible oils against the forces of rancidity. As an intentional ingredient of shortening and table spreads, it makes their consistency almost independent of temperature. (As man inhabits more and more of the globe, he will need quite a few such ideas to keep himself in a good frame of mind.)

To send for our salesman and his samples, write Distillation Products Industries, Rochester 3, N. Y. (Division of Eastman Kodak Company.) Let him hint at new frontiers in fish-dipping, raisin-spraying, chicken-plucking, meat-freezing, and sealing the cut end of a hand of bananas so that the stalk can be left back at the plantation.

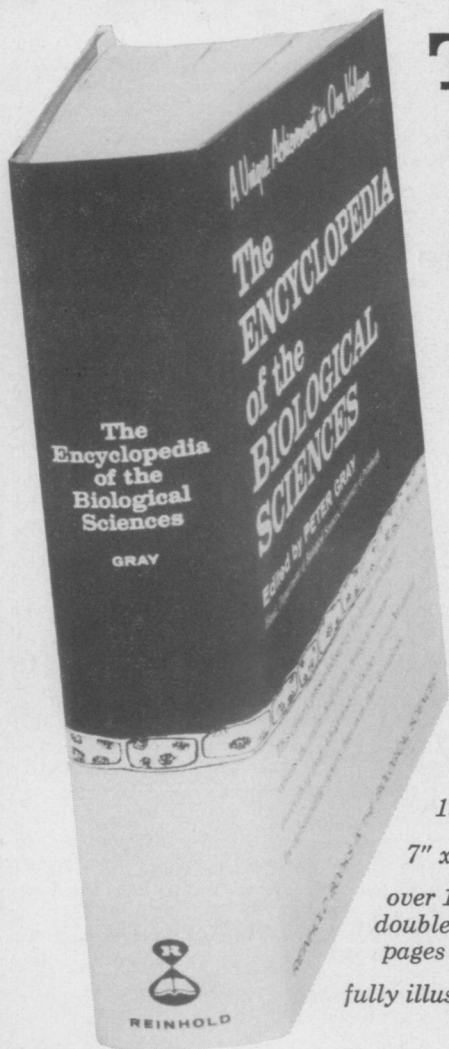
*A distilled monoglyceride of fully hydrogenated lard or cottonseed oil, with about half the glyceryl hydroxyls replaced by acetyl groups.

**A distilled monoglyceride of partially hydrogenated lard or cottonseed oil, with nearly all the glyceryl hydroxyls replaced by acetyl groups.

***United States Food and Drug Regulations, Sec. 121.1018.

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About the Editor: Since 1926, Professor Peter Gray has had published numerous papers on a variety of biological subjects, and has himself contributed to several encyclopedias. He received his doctorate in 1931 from the University of London before launching an extensive career of lecturing and research. He joined the faculty of the University of Pittsburgh in 1939, and became Head of the Department of Biological Sciences in 1947. He is a member of eleven professional societies, in addition to being an editor of *Biological Abstracts*. His determined efforts and editorial talents have contributed greatly to making *The Encyclopedia of the Biological Sciences* a significant milestone in the history of scientific literature.

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