15¢
$5.50 A YEAR

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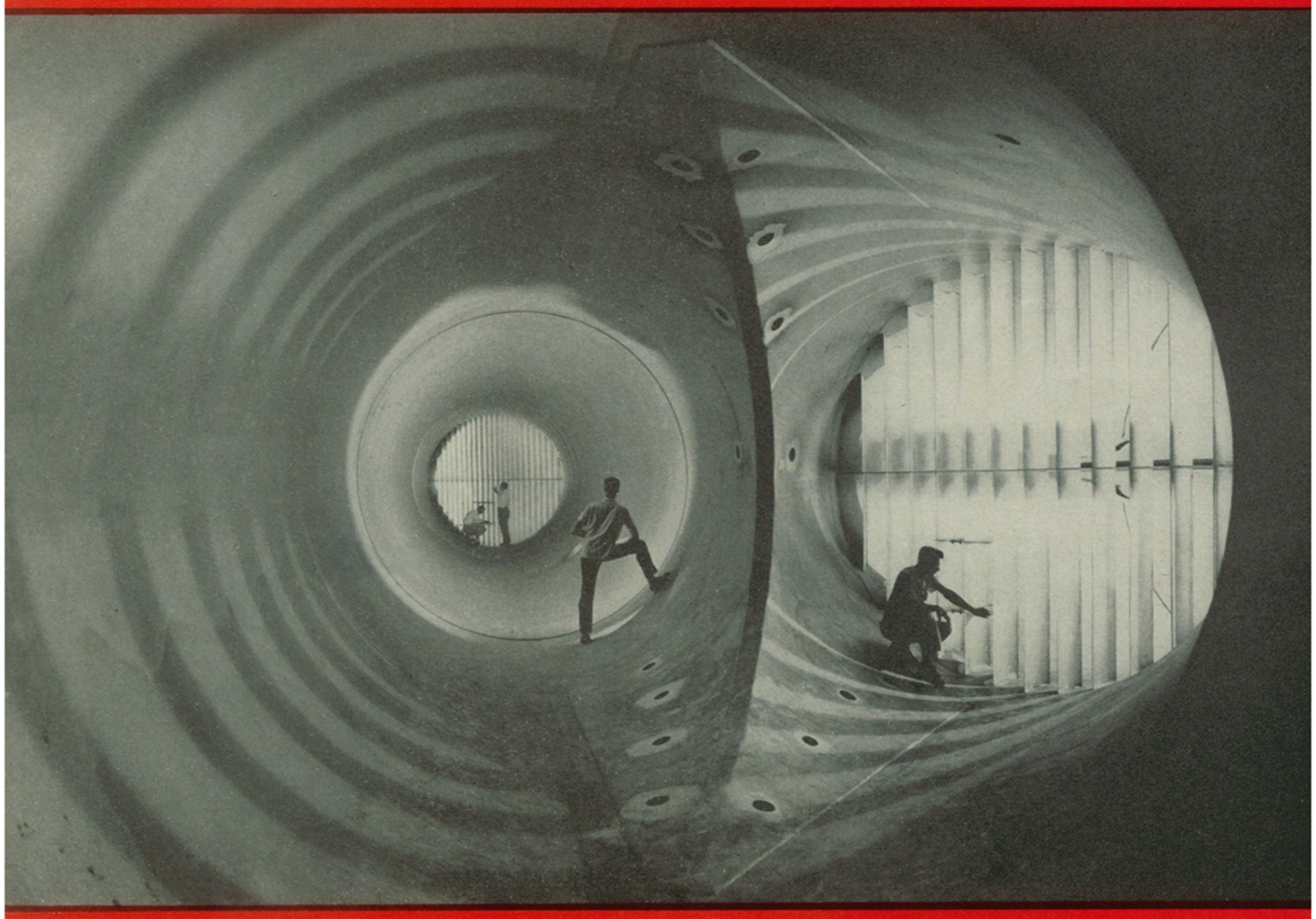
SCIENCE NEWS LETTER®

THE WEEKLY SUMMARY OF CURRENT SCIENCE



Unitary Wind Tunnel

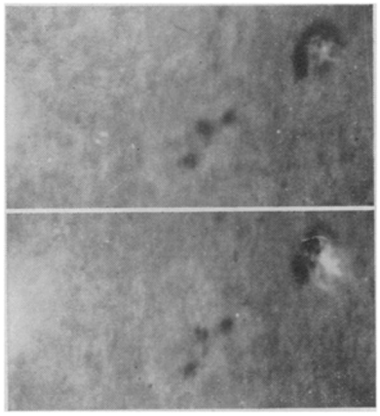
See Page 247

A SCIENCE SERVICE PUBLICATION

Kodak reports to laboratories on:

films for those engaged in advanced photographic exercises and those who are not . . . watching a tail-lash at leisure . . . the 40th edition of the Eastman Organic Chemicals Catalog

Sun and grain

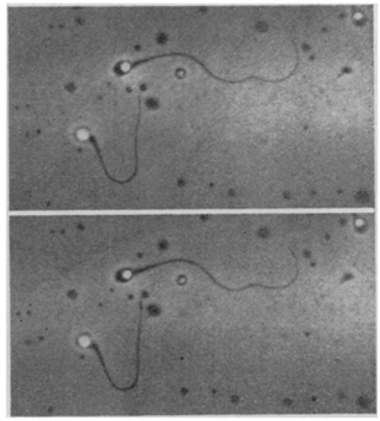


These two frames of movie film were taken ⅛ second apart. These are part of a cine record of a sunspot made on August 11, 1954, at the RCA Solar Observatory, Rocky Point, N. Y. When one computes how fast the "flare" has moved in the ⅛ second, one is inclined to attribute the apparent motion to excitation rather than to transport of actual material at a velocity of 50,000 kilometers per second.

Since Dr. William A. Miller was photographing the face of the sun itself, getting enough light on his film was the very least of his problems. He could therefore afford to choose *Kodak Spectroscopic Film, Type 548-GH*, in which the balance between light sensitivity and resolving power is weighted overwhelmingly in favor of the latter. (Only *Type 649* is slower and finer-grained than *Type 548*.)

Anyone else who can afford so prodigally to trade film sensitivity for fineness of grain can make arrangements for a supply of Kodak Spectroscopic Film, Type 548-GH (*or even* Type 649), *by writing to Eastman Kodak Company, Special Sensitized Products Sales, Rochester 4, N. Y. The same emulsion on glass can be ordered directly from Kodak dealers as* Kodak High Resolution Plates. *Frankly, though, if you need practical camera speed along with the finest grain that can accompany it, your best bet is to pick up a few rolls of the new* Kodak Panatomic-X Film *at the nearest film counter.*

Time and light microscopes united



These two photomicrographs were taken 1/500 second apart through a phase microscope at 105× magnification of an object some 400 billion times smaller than the sunspot in the adjoining column. We made some 4,000 such photomicrographs in a recent 8-second span of time. By projecting the pictures at the usual 16 frames per second, one can for the first time watch at leisure how spermatazoa whip their tails.

Shortly after we speculated in one of these advertisements that "with no loftier motive than moving a little merchandise (we might) accomplish the greater good of a seed dropped in the right place at the right time," we heard from the laboratory where this cinephotomicrography was done. The workers there pointed out that to see the details of spermatazoan locomotion would call for slowing down time by far more than a 4× factor we had mentioned in connection with conventional movie cameras. This we were able to accomplish by attaching to the light microscope a powerful time magnifier, the *Kodak High Speed Camera*. We had also fortunately developed recently the new *Cine-Kodak Tri-X Film*, with sensitivity to permit a light level that such heat-sensitive subjects could survive long enough to be photographed.

Now we wonder what else can be done with high speed movies through the microscope that would be worth the price of a *Kodak High Speed Camera* ($1713.50). Protozoology, perhaps? Crystal formation?

For guidance in working out a possible alliance between this camera and your microscope, write Eastman Kodak Company, Medical Division, Rochester 4, N. Y.

Our sweet laborers *have finished the task of preparing the address labels. By now "Eastman Organic Chemicals, List No. 40," should have reached all who have in years past indited a desire to keep receiving each new edition of the catalog of the 3500-odd reagents and other organic compounds quickly available in laboratory quantities from a single source of known integrity. Others who want the new catalog should address* Distillation Products Industries, *Eastman Organic Chemicals Department, Rochester 3, N. Y. (Division of Eastman Kodak Company).*

Price quoted is subject to change without notice.

This is one of a series of reports on the many products and services with which the Eastman Kodak Company and its divisions are . . . *serving laboratories everywhere*

Kodak
TRADE-MARK

Eighth NATIONAL SCIENCE FAIR

LOS ANGELES COUNTY MUSEUM **LOS ANGELES, CALIFORNIA**

May 9 - 11, 1957

You, as a student in secondary school, are a most important person . . . not only to your parents and friends . . . but to the nation. As a young scientist, we gladly open new doors, new vistas to you.

Are you in a science fair affiliated with the National?

Your area fair is invited by Science Clubs of America to enter the nation-wide contest and bring you, as a finalist, to famed Los Angeles next May.

If your fair is in the planning stage ask your teacher to write us for effective know-how in organizing and conducting a fair through to a brilliant conclusion.

Individual exhibits from accredited fairs aligned with the National are eligible to enter the national event.

A scientific exhibit is, actually, the development of an idea. Start your own early so that you may add to its effectiveness as school days progress. Carefully weigh its attractiveness, its eye-appeal, for each exhibit must tell its story without explanation.

Many local and national organizations will assist your fair program.

The past few years have proved that alert groups in many brackets have worked enthusiastically with ambitious young people. Universities, colleges, scientific organizations, newspapers, industry and civic clubs have helped organize and finance regional fairs and provided funds to make it possible for selected finalists to attend the National Science Fair.

The eighth event in Los Angeles will be the largest to date.

Awards

Each boy and girl attending the Eighth National Science Fair will be given a silver medal with a gold SCA insignia on the face; on the reverse will be engraved the date, name of contestant and that of the sponsoring organization. "Wish-Awards" totalling more than $2,500 in scientific material and equipment will be given the winning entrants. Four First Awards will have the value of $125 each; Second Awards, $75; Third Awards, $50; and 25% of the remaining exhibitors will receive $25 awards.

The Official Party

Finalists and accompanying adults . . . educators, news and camera men . . . make up the Official Party. Many events, many privileges, will be extended to the party; from the static exhibits in the Los Angeles County Museum to the actual dynamic progress being made in the sciences that affect the lives of everyone.

California — the Golden State — awaits you!

For complete information write:

NATIONAL SCIENCE FAIR

SCIENCE CLUBS OF AMERICA

A SCIENCE SERVICE ACTIVITY

1719 N St., N.W. **Washington 6, D. C.**