

15¢

\$5.50 A YEAR

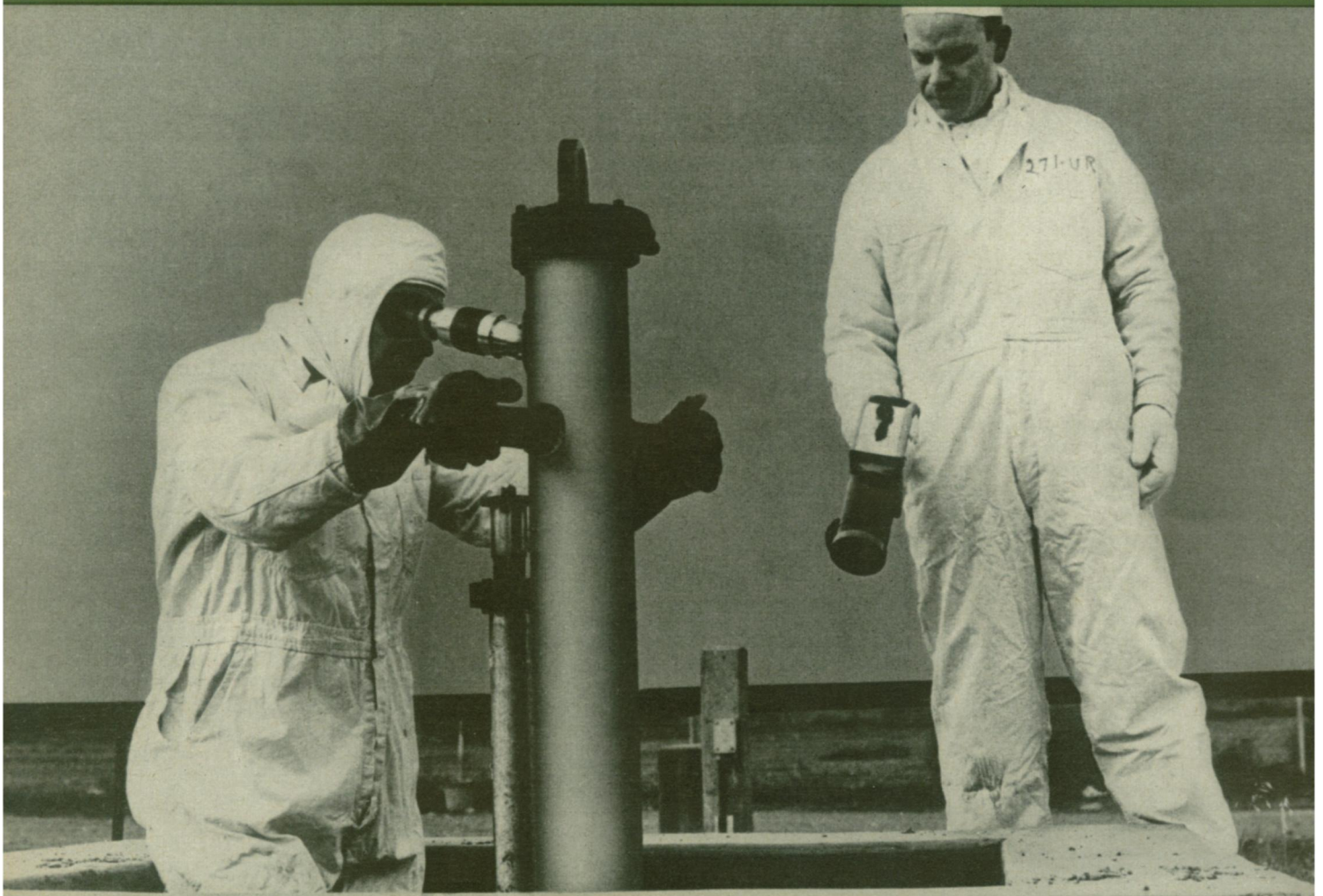
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SCIENCE NEWS LETTER

®

THE WEEKLY SUMMARY OF CURRENT SCIENCE



Uranium "Hot" Bed

See Page 151

A SCIENCE SERVICE PUBLICATION

Kodak reports on:

film for cases where no other film will do . . . learning to synchronize . . .
25 years in the commercial plastics business

For your own good

It is now possible to walk up to an ordinary film counter and buy a roll of 120 or 620 roll film that is just too fast for your own good. We do *not* recommend the new *Kodak Royal-X Pan Film*, except for special cases involving very poor light conditions, very high shutter speeds, or very small lens openings. Processing it by current commercial photofinishing techniques will lead to unsatisfactory results; instead, one must follow the special processing instructions packed with the film. Measured by the official ASA method, the Exposure Index is 650, but we think you will get along better handling it on the assumption of a 1600 exposure index.

Semi-pro sound movies

Four hundred feet of unexposed 16mm *Kodachrome Film* can be purchased for \$24. \$14 more gets it processed (and by *us* at that). \$10 more puts a *Kodak Sonotrack Coating* along the edge. Now sound can be magnetically recorded on the film by merely projecting it with the *Kodak Pageant Sound Projector, Magnetic-Optical*, while commentary, sound effects, and/or musical background are applied via the handy microphone. Now, if 10% is enough for wastage, you have 10 minutes of movies with sound. Total outlay, exclusive of equipment amortization and talent—\$48. If you have planned well, you can impart much information or persuasion in this way, and more vividly than by ink on paper.

Then ambition sets in. You realize in time that the distinction between a movie with sound and a sound movie can be as noticeable as the distinction between "assistant director" and "assistant to the director."

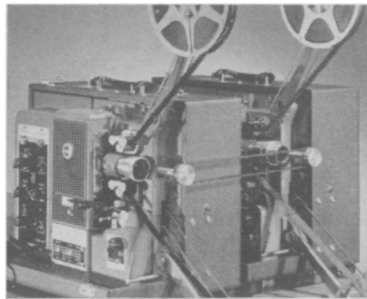
Synchronization—that's the problem.

If the aforementioned *Pageant* projector could be run at exactly the same speed as the movie camera used, you could take the projector to the scene of photography and with it record lip-synchronized speech and actual sounds. This turns out to be feasible. All you

need is a simple braking attachment on the projector and a strobe pattern disk, both of which we can supply, and a little neon or argon lamp.

Still, you are not yet in a good position to compete for the top awards of the Motion Picture Academy of Arts and Sciences. On the other hand, you have paid the Kodak Audio-Visual Dealer only \$12.50 for synchronizing equipment.

By now when watching movies at the theater or on television, you are aware of how the film editor keeps switching back and forth between the camera angles and auxiliary shots at his disposal while the sound track flows smoothly on. So back you go to the Audio-Visual Dealer. He has been fully indoctrinated by us in a new re-recording



technique built around a few other extremely inexpensive magnetic recording aids (as simple as the pulley arrangement pictured here) and certain unique design features of the *Pageant Sound Projector, Models MK4 and AV-104M*. He is eager to teach it to you.

If you can't remember the fellow's name, a note to Eastman Kodak Company, Audio-Visual Sales, Rochester 4, N. Y., will bring a quick reminder.

Hooray!

This fall we celebrate the 25th anniversary of our entry into commercial plastics (as distinguished from plastics for photographic film base, which we have been in since 1889). Hooray.

If you share our elation over the occasion, you will permit us to send you a plastic (*Tenite Butyrate*) commemorative medallion depicting one of the first U. S. injection molding machines. This heraldic device

marks the historic fact that injection molding of plastics became an art of mankind through our exploitation of the discovery that cellulose acetate, mixed with a plasticizer, could be squirted hot. Hooray!

For sophisticates who look beyond butyrate medallions for their excitement, our plastics story has a slant that even they may find stimulating. That's the part where we mention psychophysics, profess our disdain for color standards in the plastics trade, and irritate our competitors by enthusiastically pushing the idea of custom colors.

The joy that the human race takes in its color vision has brought us prosperity.

Long live *Kodachrome, Kodacolor, Ektachrome, Ektacolor*, and *Eastman Color Films!* Also *Chromspun Acetate Yarn!*

The chromaticity diagram of the International Commission on Illumination—long may it wave!

Long live those gallant fellows of ours who spend their 8-to-5 lives exploring its mathematical properties and conclude that the normal eye is capable of about two million distinguishably different color sensations, half of which are possible as colors of actual objects!

Long live the independently wealthy automotive genius who decides just how much difference from any of the 38,000 extant colors in sturdy *Tenite Acetate*, extra tough *Tenite Butyrate*, and warmly soft *Tenite Polyethylene* it will take to create a certain effect in your wife's mind when she sneaks a peek into the 1959 model while waiting around in the showroom for the service department to make its estimate on overhauling the old heap!

For a reprint of a very recent paper of ours that tells how to build an electronic digital tristimulus integrator that attaches to a recording spectrophotometer and reads off ICI co-ordinates for any color, write Eastman Kodak Company, Research Laboratories, Rochester 4, N. Y. For the commemorative medallion, or for any conceivable color effect in Tenite Plastics, which are, frankly, the aristocratic family of the plastics age, write Eastman Chemical Products, Inc., Kingsport, Tenn. (Subsidiary of Eastman Kodak Company).

Prices quoted are subject to change without notice.

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

Kodak
TRADE MARK

For the business man who knows he can't "coast" to the top!

This Inspiring and Helpful Little Book—Sent Free On Request—Will Show You How to Speed Up Your Progress in Business . . . and Avoid the Heartbreak of Failure in Later Years

"FORGING AHEAD IN BUSINESS" was written for men who realize they must persistently plan and look ahead to be successful in business. To such men, it brings the mature, considered thinking of a distinguished group of specialists in the field of executive training. The booklet answers such questions as:

- "Why do men of equal ability often fare so differently in the competition for bigger salaries and better jobs?"
- "What must a man know to make \$15,000, \$20,000 or more a year? What must he do to accumulate this knowledge?"
- "How can one forcefully bring himself to the attention of management?"
- "Is there really any short-cut to success?"

HOW TO SUCCEED WHILE YOU'RE STILL YOUNG!

It surprises many people to learn that the average age of the men who respond to our advertisements is closer to forty than to twenty. But it's not hard to understand why this is true!

Most young men are *satisfied* with their progress in business. Their native ability and energy are enough to win them regular promotions and salary increases. They find success only a matter of time.

But the day comes, often with a shocking suddenness, when this easy and casual progress ends abruptly.

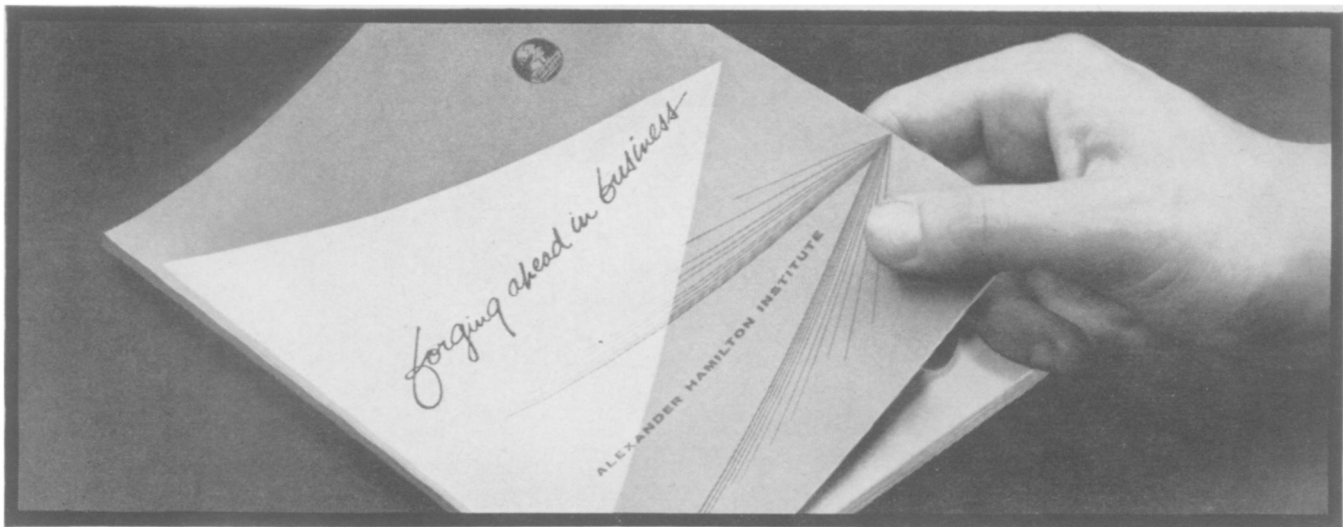
Many a man wakes up with a start in his thirties or forties to find that his income has leveled off, and that promotions have ceased.

"I'm not getting ahead as fast as I should," he says to himself. "Where am I going to be ten years from now?"

Why does this pathetic pattern appear in so many promising careers?

The answer is simple: Sheer ability and energy can carry a man to the mid-way point in business . . . *but only a thorough knowledge of business fundamentals can help him beyond that point.*

If you realize that fact while time is still on your side—and act on it—you can succeed while you're still young.



FREE . . . "FORGING AHEAD IN BUSINESS"

We do not claim that you must have the Alexander Hamilton Course in order to succeed in business. But we do say that *you cannot succeed without what is in the Course!*

All the Institute does is offer you a convenient and time-saving means of bringing this knowledge to you in your spare time; and in a form that has *proved* to be practical and effective for more than forty years.

So that you may judge for yourself whether or not you think the Institute can help you, our program has been outlined

fully in "Forging Ahead in Business."

We believe that this little book will help any man get down to bed-rock in his thinking; however, there's no cost or obligation for it because—frankly—we've never been able to put a price on it that would reflect its true value. Some men have found a fortune in its pages.

If you would like a complimentary copy of "Forging Ahead in Business", simply sign and return the coupon. It will be mailed to you promptly.

ALEXANDER HAMILTON INSTITUTE
Dept. 577, 71 W. 23rd St., New York 10, N. Y.
In Canada: 57 Bloor St. W., Toronto, Ont., Canada

Please mail me, without cost, a copy of the 48-page book—

"FORGING AHEAD IN BUSINESS"

Name _____

Firm Name _____

Business Address _____

Position _____

Home Address _____

ALEXANDER HAMILTON INSTITUTE 71 West 23rd St.
New York 10, N. Y.