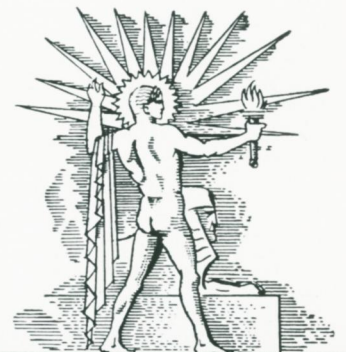
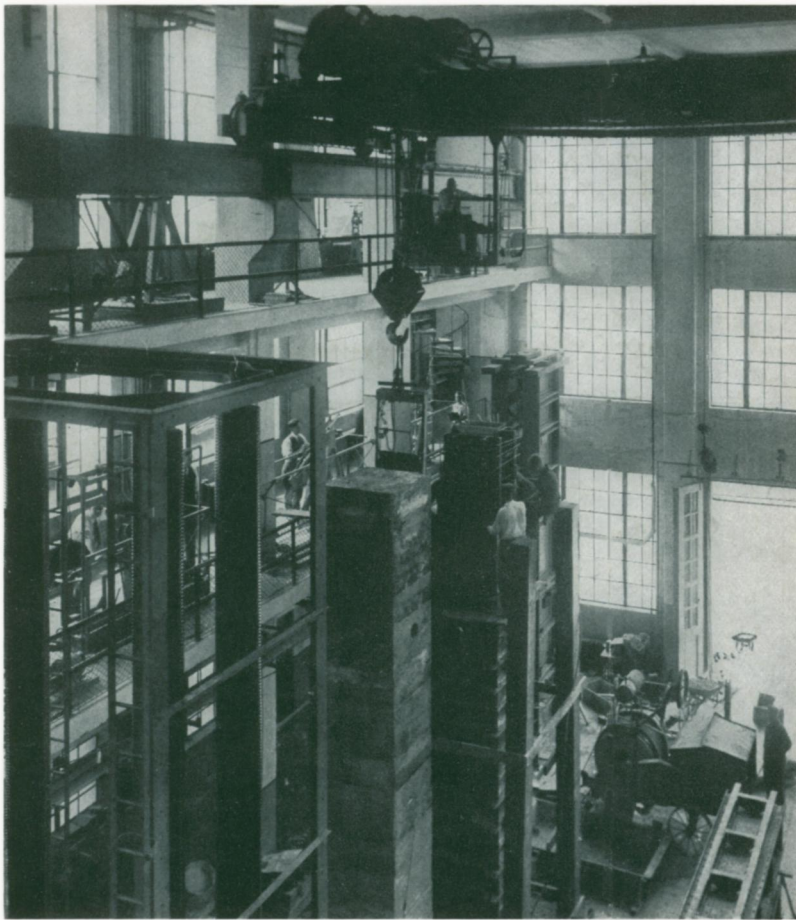


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# SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE ●



OCTOBER 3, 1936

## Testing Strength

See Page 217

A S C I E N C E S E R V I C E P U B L I C A T I O N

# SCIENCE NEWS LETTER

Vol. XXX



No. 808

The Weekly Summary of

## Current Science

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## DO YOU KNOW?

Popularity of automobile trailers has called attention to the need for a standard coupling design to link trailers with any make of car.

The National Bureau of Standards is studying the conditions of wear in shoes, with a view to developing standards for women's leather shoes.

Russian gold production, increasing rapidly, will outstrip Transvaal gold output in three or four years, one Soviet official predicts.

Chemists find that if dye is to give a fast color to cotton, the dye particles must be smaller than one seven-millionth of an inch in diameter.

Before white men came to America, Aztec Indians in Mexico had a native religion with such institutions as convents, monasteries, a hierarchy of priests, and the rite of confession.

Horseshoes worn by racing horses are as light as five ounces, in contrast to shoes worn by draft horses, which may weigh six times that much.

The German shoe industry is struggling with a leather shortage, and is using fabric, rubber, and other materials to replace leather when possible.

Chameleons take on their most rapid changes in color, not to match surroundings, but in expressing their fear or rage.

To extract tree seed from cones, the cones are sometimes heated in kilns, but the method requires special care to avoid overheating the seed.

The modern feminine device of keeping a hat on with a band at the back was used by men of Athens, fourth century B.C.

Italy is getting various by-products from tobacco, including an edible oil, an industrial oil, stock feeds from tobacco seed, and paper from tobacco stalks.

Japanese government scientists are believed to be on the track of the valuable secret of how to produce salt directly from sea brine for commercial use.

## WITH THE SCIENCES THIS WEEK

Most articles are based on communications to Science Service or papers before meetings, but where published sources are used they are referred to in the article.

### ARCHAEOLOGY

Is the prison of Richard the Lion-Hearted known to scientists? p. 216.

When was a town near the city of Washington a fashion center for the new world? p. 213.

### ASTRONOMY

What interesting object is now located in the constellation Aquila? p. 214.

What is now the status of the 200-inch telescope? p. 214.

### BIOCHEMISTRY

What new substance causes blood to clot? p. 217.

### BIOLOGY

Does the Dead Sea hold life? p. 216.

### CHEMISTRY

Do enzymes actually take part in chemical reactions? p. 215.

### ETHNOLOGY

How did the West Indian people insure themselves against hurricanes? p. 211.

### ICHTHYOLOGY

Have fish ever grown to a length of 30 feet? p. 213.

### INVENTION

Can Thomas Edison's voice be heard today? p. 220.

### MEDICINE

Can arthritis affect the eyes? p. 212.

### OCEANOGRAPHY

How deep has man gone below the surface of the water? p. 217.

### PALEONTOLOGY

Where is the greatest fossil mine? p. 218.

### PHOTOGRAPHY

Why do some films make better enlargements than do others? p. 214.

### PHYSIOLOGY

Could wax in the ear cause an apparent suicide? p. 212.

### PSYCHIATRY

What new usefulness has been found for insulin? p. 211.

### PSYCHOLOGY

Do brain-injured animals ever work better than the normal? p. 217.

### SEISMOLOGY

Does the seismograph record hurricanes? p. 211.

### SURGERY

How can weak patients be built up for an operation? p. 213.

How does the surgeon operate on the eye for glaucoma? p. 212.

### ZOOLOGY

What animal is more dangerous to hunt than the tiger? p. 216.

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# Let a nation-wide consumer organization advise you Which Brands of SHOES and TIRES are "Best Buys"

## EQUAL IN COST—UNEQUAL IN QUALITY



Brand X shoes cost \$5.55 a pair. Brand Y, \$5.50. Both are nationally advertised, widely sold. Almost exactly equal in cost, a typical Consumers Union test (reported in the current issue of *Consumers*

*Union Reports*) shows that they are far from being equal in quality. Brand Y is rated as one of the two "Best Buys" of thirteen brands of men's shoes subjected to extensive laboratory tests—Brand X is one of the five brands listed as "Not Acceptable." (For partial details of this test see table at the right.) Read this report for accurate, technical information about shoes—it also rates, in terms of brand names, ten leading brands of women's shoes. Included in this report are Florsheim, Thom McAn, I. Miller, A. S. Beck, Walk-Over, and Regal.

## A TYPICAL CONSUMERS UNION TEST

Results of 4 out of 19 laboratory tests made on the shoes mentioned at the left

|  | Brand X | Brand Y |
|--|---------|---------|
| Number of abrasive strokes on test machines required to wear out equal thicknesses of soles. . . . . | 32,169  | 43,171  |
| Number of pounds per inch required to tear or pull apart inner sole. . . . .                         | 284     | 638     |
| Number of pounds required to burst outer vamp lining . . . . .                                       | 261     | 319     |
| Number of pounds per inch required to tear or pull apart vamp leather. . . . .                       | 103     | 131     |
| Total rating on all of 19 points   | 694     | 854     |

## SAVING FROM \$40 TO \$100 ON TIRES

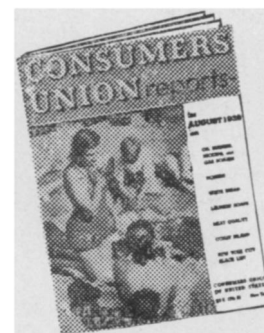


Whether you equip your car with one brand of tires or with another may mean an actual difference in cost to you of from forty to a hundred dollars in each 25,000 driving miles. A report in this issue, based

on actual road tests of over 300 tires, shows striking differences in mileage costs of leading brands in the same price range. The tires of one brand for example, selling for approximately \$8.50, lasted an average of 27,051 miles in this test—another brand selling at \$10 lasted only 13,550 miles. Twelve brands, including Firestone, Goodyear, U. S. Dunlop, Federal and Goodrich, are rated in this report—three as "Best Buys," six as "Also Acceptable" and three as "Not Acceptable."

## COMING!—RATINGS OF ELECTRIC RAZORS

Do electric shavers give as close or as good a shave as ordinary safety razors? Are they faster or slower? Will they cut or irritate the skin? Of three electric shavers, including two nationally advertised makes, only one is rated in the coming issue of *Consumers Union Reports* as a "Best Buy"—the others as "Not Acceptable." Ratings will also be given in this issue of leading brands of men's shirts, men's socks, canned peas and canned apricots, and other products. Later issues will rate ordinary safety razors, razor blades, canned fruits and vegetables, electric irons, drugs, cosmetics and many other products. The labor conditions under which many of the products are made will also be described.



## If You Missed

our first issues there is still time to get them. Simply write on the coupon with which issue you wish your membership to begin. You will immediately receive the issues dating from the month indicated and will receive future issues as they appear PLUS the yearly buying guide. Below is a brief summary of the principal subjects covered in each issue.

**MAY, 1936 (full service edition)**—Inexpensive hosiery, Grade A and Grade B milk, toilet soaps, breakfast cereals, Alka-Seltzer, toothbrushes.

**JUNE, 1936 (full service edition)**—Automobiles, gasolines, moth preventives, canned vegetable soups, vegetable seeds.

**JULY, 1936 (full service edition)**—Mechanical refrigerators, used cars, motor oils, sunburn preventives, bathing suits.

**AUG., 1936 (full service edition)**—Oil burners, coal stokers, gas boilers, medium-priced hosiery, white breads, laundry soaps, black list of dangerous drugs and cosmetics.

# Consumers Union of U.S.

Consumers Union of United States, headed by Professor Colston E. Warne, of Amherst, and Arthur Kallet, co-author of *100,000,000 Guinea Pigs*, now supplies 12,000 members (the number increasing at the rate of over 2,000 a month) with these valuable ratings of competing brands of products. If you, too, want this accurate and unbiased technical information—enabling you to save money and to buy most intelligently—simply fill out and mail the coupon at the right. You will immediately receive the current issue. Membership will also entitle you to receive the yearly buying guide to be published late in the year. (Note—the limited \$1 edition reports mainly on low-priced products and does not cover higher-priced commodities such as automobiles, refrigerators, etc. The full \$3 service covers both types of products.)

**MAIL THIS APPLICATION TODAY!**

To: CONSUMERS UNION of U.S., Inc. 22 East 17th St., NEW YORK, N. Y.

I hereby apply for membership in Consumers Union. I enclose:

\$3 for one year's membership, \$2.50 of which is for a year's subscription to the complete edition of *Consumers Union Reports*. (Subscriptions to non-members, \$3.50.)

\$1 for one year's membership, \$.50 of which is for a year's subscription to the limited edition of *Consumers Union Reports*. (Note—the tire report is not in this edition.)

I also enclose.....(\$2 to \$25) as a contribution toward a permanent consumers' laboratory.

I agree to keep confidential all material sent to me which is so designated.

Signature.....

Address.....Occupation.....

City and State..... 135