



NEW! ORTHO CUSHION

Stays where you put it.

NOW—Watch television with ease and comfort—Ortho Cushion rests your head or back.
Ride your auto in comfort, strain free—Ortho Cushion is a medically correct back support.
Sit in your office seat, for hours and be relaxed—Ortho Cushion gives you support when and where you need it.
Stay-in-beds have perfect back or head rest—Ortho Cushion stays where you put it whether you move or not.

Ortho Cushion is a foam Rubber cushion with a counterweighted backrest, has a non-skip grip, stays in place. Adjusts to any height or position. Stays put on chair, sofa, chaise. Everyone in the office should have it.

- Adjusts to any height or position
- Beautiful stain-resistant cover
- Latex foam sponge filler
- Allergy Free, sanitary, odorless
- Non-Slip sponge rubber back.

\$4.95
Post Paid



John Surrey, Ltd. 11 West 32nd St., Dept. SN-29, New York 1, N. Y.

TEXTILE TECHNOLOGY

New Treatment Increases Cotton's Rot Resistance

A CHEMICAL treatment that makes cotton fabric more resistant to rot and weather promises to open new markets for cotton in awnings, tents, tarpaulins and other outdoor fabric items.

Developed for the U. S. Department of Agriculture by its Agricultural Research Service, the treatment is based on use of a water-soluble acid colloid of methylolmelamine, a chemical well-known for its resin-forming qualities.

The resin penetrates the outer portion of the fiber cell wall to become a part of the fiber rather than just a coating. It thus makes cotton virtually immune to rot and mildew.

In tests using soils containing fabric-destroying bacteria, untreated cotton was in shreds after one week, while treated cotton retained 100% of its breaking strength after 21 weeks.

Other research has shown that the treatment can be used with some fabric-coloring pigments to increase cotton's resistance to deterioration by sunshine.

Science News Letter, August 8, 1959

ZOOLOGY

Insect-Eating Bird Flocks Follow Paths of Ants

THE HORDES of foraging army ants that march across the jungle floor leaving desolation in their path are followed by large flocks of insect-eating birds that swoop down upon insects driven from their hiding places by the devastating ants.

This strange natural partnership between birds and ants is being studied at the Smithsonian Institution's jungle reservation on Barro Colorado Island, Canal Zone, by Dr. Robert Barth of Harvard University.

Dr. Barth has found that the mixed bird flocks apparently never bother the ants themselves. Instead, they feast on grasshoppers, worms, tarantulas, etc., that flee the ants' path.

The nucleus of such a bird flock is composed of the black and white jungle "ant-birds," so called because they follow ants rather than because they eat them.

About a half dozen other species also are found in the flock. These attach themselves somewhat like camp followers, mixing freely with the main flock. They include puffbirds, motmots or "time birds," wrens, flycatchers and tanagers.

A glimpse of such a bird flock is almost certain evidence that a major ant column is moving along the jungle floor below with a front varying in width from three to 20 yards.

The same bird group may follow the same ant columns for days, and even the smallest of the birds descend fearlessly among the ants, apparently unmolested by them.

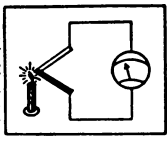
Science News Letter, August 8, 1959

Best Book Contest for 1959

\$1600 Cash Awards plus 40% return. All types of manuscripts invited. For Contest rules and details of famous publishing plan, write for free Brochure SN. Pageant Press, 101 Fifth Ave., N. Y. 3

THERMO-ELECTRONICS

Successor to thermo-electricity. Change heat to electricity DIRECTLY—no acids, liquids, chemicals, moving parts or sunlight! Build or buy a thermo-electronic battery. Mail 25¢ today for information and sample thermo-electronic alloy.



HERMON E. COTTER Dept. H. 15788 Blackstone, Detroit 23, Mich.

New "Mechanical Educator" to IMPROVE MEMORY

Learn faster than ever with new device effective for learning languages, speech, tables, facts, formulae.

DORMIPHONE MEMORY TRAINER

- Speeds up learning processes
- Aids concentration
- Provides entertainment

The Memory Trainer records, instantly plays back, and when clock is set, automatically repeats speech, music, any material at regular intervals through a built-in speaker. No reels of tape to snarl or rewind. Portable. Ideal aid for work, school, child training, entertainment—Used by educators, psychologists, people of all ages.

Self-Contained Recording Cartridges from 30 seconds to 55 minutes. Easily removed. Can be stored or "erased" instantly and reused repeatedly.

Write TODAY for FREE folder with complete information.

Modernophone, Inc., 125-089 RadioCity, N.Y., 20, N.Y.



MICRO-ADS

Equipment, supplies and services of special interest to scientists, science teachers and students, science-minded laymen and hobbyists. 25¢ per word, payable in advance. Closing date 3 weeks prior to publication (Saturday).

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

BIOLOGICAL STAINS

BIOLOGICAL STAINS FREE PRICE LIST. ESBE Laboratory Supplies, 450 Bloor St., W., Toronto, Ontario, Canada.

MISCELLANEOUS

BINDERS FOR SALE—BUFF-COLORED Buckram, Snap-in metal strips hold 52 copies. \$4.00 pp. Send orders with remittance to Science News Letter, 1719 N Street, N.W., Washington 6, D. C.

Questions

ANTHROPOLOGY—What are some characteristics of the Old World grape? p. 84.

ASTRONOMY—Why must rocket velocity be changed from conventional units to astronomical units? p. 83.

CHEMISTRY—What are the major disadvantages of uranium metal rods in nuclear reactors? p. 91.

OCEANOGRAPHY—What is one possible way the temperature of prehistoric seas may be determined? p. 86.

PUBLIC HEALTH—To what group of bacteria does typhoid belong? p. 82.

Photographs: Cover, U. S. Army; p. 82, A. Scholes; p. 83, University of California; p. 85, U. S. Air Force; p. 86, American Standards Association; p. 87, Firestone Tire and Rubber Company; p. 90, Smithsonian Institution; p. 96, Hood Rubber Company.

Do You Know

Fruit should not be set in a sunny window to ripen, because overheating is likely to cause the fruit to decay before it can ripen.

The total number of forest fires in the U.S. was under the 100,000 mark for the second year in a row in 1958 with 97,910 fires reported.

Water supplies of 1,903 cities and towns in the U.S. with a combined population of 7,000,000 contain enough fluoride naturally to prevent two out of three dental cavities.

It has been estimated that 10,000,000 Americans spend \$500,000,000 annually for dietary supplements, concentrates, pills and capsules claimed to be "cure alls."

Malaria, until recently, caused more deaths and chronic ill-health in the world than any other single disease.

Farmers are almost twice as likely as city dwellers to fall victim to the U.S.'s greatest crippler, arthritis.