

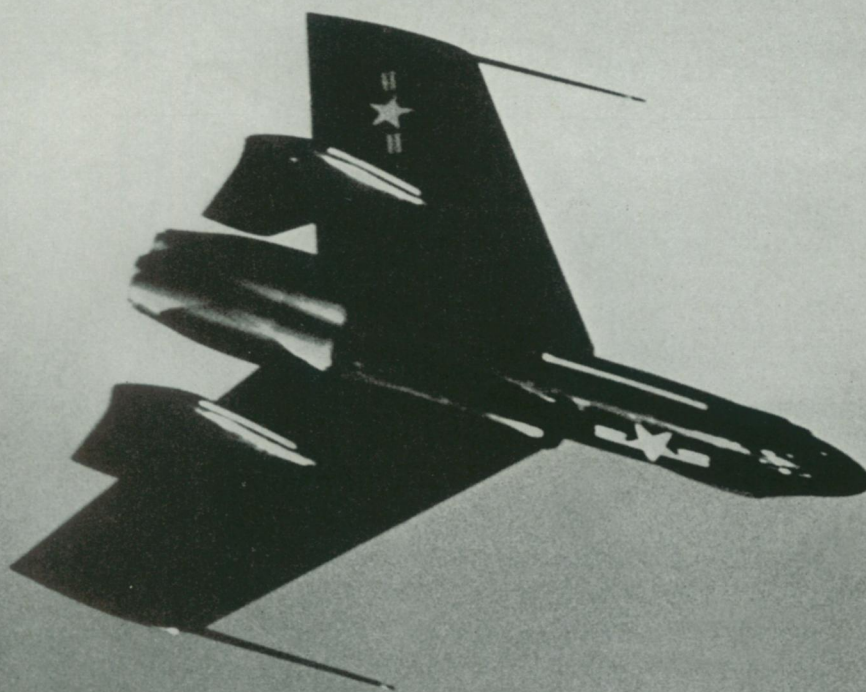
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November 27, 1948

# SCIENCE NEWS LETTER

®

THE WEEKLY SUMMARY OF CURRENT SCIENCE



**Jet for Carrier**

See Page 344

A SCIENCE SERVICE PUBLICATION

\$5.50 A YEAR

VOL. 54 NO. 22

YOU CAN BE SURE..IF IT'S **Westinghouse**



This super-powerful 1½-ton, 28,000-watt electromagnet, developed by Dr. J. E. Goldman of Westinghouse Research Laboratories, is oil-cooled, wound with 6,000 turns of square copper wire.

## *Magnet "Picks Pockets" Two Feet Away*

Enough strength is packed between the poles of this new electromagnet to support a 4,000-pound automobile. It will pick the pockets of the operator standing two feet away and stop his watch at four feet.

One secret behind this magnet's extra power is the special alloy in the pole tips. It was developed by the Westinghouse research laboratories, and gives more magnetic energy than ordinary iron.

But more important, it opens doors to new

studies in magnetism and its practical applications—for example: in designing cyclotrons; in the production of smaller and lighter aircraft instruments; and as a research tool for studying the relationship between the crystal line structure of metals and their magnetic properties.

No matter what immediate results accrue from this new electromagnet, Westinghouse research engineers will continue to look for ways to help industry and science move ahead.

G-10022



**Westinghouse**  
PLANTS IN 25 CITIES . . . OFFICES EVERYWHERE



# Three Christmas Gift Ideas for EAGER- MINDED CHILDREN

## Kit No. 1

### FUNDamentals of Science MAGNETISM AND ELECTRICITY

Equipment and instructions for 56 experiments on magnetism (making a compass for instance), static electricity, the electrophorus, the electroscope, making a condenser, electric currents, making a galvanometer, and electroplating are contained in this kit.

Specifically, the equipment consists of: MAGNETISM—Horseshoe-type Magnet, Package of Iron Filings, Compass Card, Lodestone. STATIC ELECTRICITY—Sealing Wax, Metal Foil, Pyrex Test Tube, Fur, Cornstalk, Gold Leaf, Metal Disk and Sheet of Acetate Film for Electrophorus. CURRENT ELECTRICITY—Zinc Strip, Coil of Insulated Copper Wire, Carbon Rod, Sal Ammoniac. ONE PARTS BOX CONTAINING—a compass bearing, steel needles, steel pins for compass, gummed strips, soft iron nail, cork disks, ball bearings, straw, ball and pin for electroscope.

## Kit No. 2

### FUNDamentals of Science BLACK LIGHT AND GLOWING MATERIALS

26 experiments on fluorescence, phosphorescence, and glowing paints are suggested in the instructions for this kit, along with how to use fluorescent material in crime detection and how to get stroboscopic effects.

Specifically, the equipment consists of: SIX MINERAL SPECIMENS—Wernerite, Semiopal, Autunite, Green Fluorite, Willemite, Brown Fluorite.

SEVEN VIALS OF GLOWING MATERIALS: Fluorescent—Deep Yellow, Blue-Green, Cerise, Light Yellow; Phosphorescent—Light Green, Gray-white; Special—Greenish Gray-tan. One Vial of Gum Arabic, AND A fluorescent golf tee, a brush, a star map, a stroboscope, a picture (for coloring). One 110-Volt Argon Lamp—Rich in ultra-violet.

## Kit No. 3

### FUNDamentals of Science SOILLESS GARDENING

This kit has the instructions and the equipment for a soilless garden in the house or in an apartment without regard to weather. How to plant seeds, how to water and feed them, how to transplant, about water culture, sand culture, soilless gardening on gravel or cinders, about deficiency symptoms, about seedless fruit hormone, and how to produce seedless tomatoes, and how Hormodin is used—all this knowledge is in the Soilless Gardening Kit.

There are suggested experiments with sprouting seeds, and how to speed germination; on the importance of chemicals and how plant roots produce acid; about phototropism and geotropism; how to grow carrots upside down; how to perform tricks with plants (changing the length of day) and what total darkness does to plants; what light versus gravity does, colored light, and the use of colored tents.

Specifically the equipment consists of: One dozen green POTS (that you can assemble); COLORED CELLOPHANE sheets to be used in light and growth experiments; CHEMICALS your plants will need—potassium acid phosphate, magnesium sulfate, calcium nitrate, ferrous sulfate; Seven kinds of SEEDS—Russian sunflower, Earliana tomato, Globe radish, Dwarf nasturtium, Okra, Soya bean, Ornamental gourds; Box of VERMICULITE; Plant Breeding Material—HORMODIN, SEEDLESS FRUIT HORMONE.

## Christmas Order Blank

Science Service, 1719 N Street, N. W., Washington 6, D. C.

Please send, postpaid, to arrive in time for Christmas, FUNDamentals of Science Kits as indicated below, and include with each the special Christmas Card with my name on it as donor.

\$ \_\_\_\_\_ (\$4.95 per kit) is enclosed.

**Send Kit(s) No. \_\_\_\_\_ Gift from:**  
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**OR,**  
**send Kit(s) No. \_\_\_\_\_ to me**

Additional Names of Recipients can be put on a separate sheet and mailed with this coupon.

Each kit comes in a colorful, sturdy, wooden box with metal clasps, each kit is expertly wrapped for shipping in corrugated board and heavy kraft paper. Each kit contains the materials (as listed above) for scientific experiments and a book of instruction that is carefully written for easy reading. But most important, each kit contains hours of concentrated enjoyment and new worlds of understanding. Each kit costs \$4.95.

Fill in the coupon at the left, detach and mail today, indicating whether you wish the kits sent direct to your favorite mentally energetic child, or to yourself.