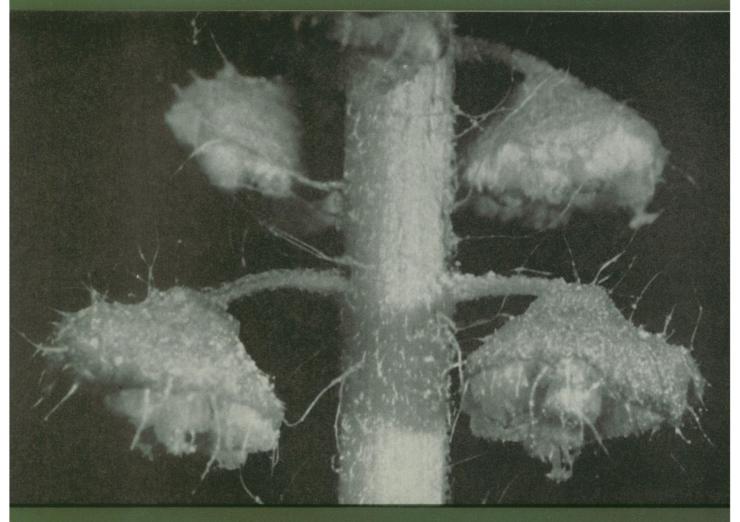
# SCIENCE NEWS LETTER

0

THE WEEKLY SUMMARY OF CURRENT SCIENCE



Fall's Dreaded Weed

See Page 212

A SCIENCE SERVICE PUBLICATION

## ENGINEERED FOR THE LAST WORD IN BREATHTAKING PERFORMANCE... PRICED FOR FIRST CHOICE IN VALUE... FULLY EQUIPPED WITH MANY EXTRA FEATURES!

You'll Marvel At How The Superb Optics Of This Portable RV-6

## 6-inch DYNASCOPE®

Gives The Same Exquisite Definition As Far More Expensive Instruments!

This new addition to the Dynascope line has won immediate recognition from schools, colleges, and professionals, as an outstanding achievement in a 6-inch telescope. Although it was only recently introduced, our files are already filled with complimentary letters from excited amateurs and professionals all over the country. Each one is truly amazed at the superior optical performance of this new RV-6 6-inch Dynascope! Here is large aperture in a quality instrument at a price that compares with many 4-inch telescopes. And this low cost includes such exclusive features as electric drive (patented), setting circles, and rotating tube! There are no "extras" to run up your cost!

The superb optical system resolves difficult objects with definition that is absolutely breathtaking. The close tolerances of the precision construction assure an accuracy and smoothness of operation once associated only with the finest custom models. The heavy-duty mount, complete with electric drive, provides the stability so essential for satisfactory viewing, yet there is easy portability because in a matter of minutes the entire telescope can be dismantled into three easy-tohandle sections.

Only Criterion's engineering ingenuity, coupled with volume production and modern manufacturing methods, makes this handsome 6-inch model available at such reasonable cost. You can order it with complete confidence that it will live up to your expectations in every way, for this assurance is *guaranteed* under our full-refund warranty. Send your check or money order today. Or use our liberal time-payment plan and take months to pay.

#### YOU COULD PAY \$100 MORE WITHOUT GETTING ALL THESE SUPERIOR FEATURES (Except on Another Dynascope)

EXQUISITE OPTICAL SYSTEM INCLUDES F/8 6-INCH PARABOLIC MIRROR made of PYREX brand glass, accurate to better than ½ wave, zircon-quartz coated, and guaranteed to reach all theoretical limits of resolution and definition. Teamed with elliptical diagonal, mounted in 4-vane adjustable

NEW DYN-O-MATIC ELECTRIC DRIVE with smooth self-acting clutch

2. NEW DYN-O-MATIC ELECTRIC DRIVE with smooth self-acting clutch that engages and disengages automatically as you seek different objects. Will not interfere when manual operation is desired. Entire drive housed in trim aluminum case. Plugs into ordinary household socket.

3. CHOICE OF ANY 3 EYEPIECES from the following: 65x-18-mm. Achromatic Ramsden; 100X-12.7-mm. Achromatic Ramsden; 20X-6-mm. Orthoscopic; 320X-4-mm. Orthoscopic. All are precision-threaded, give sharp images to extreme edges.

4. SOLID NEW EQUATORIAL MOUNT, extra-reinforced design to provide pillarlike stability. No annoying side play or wobble. Adjusts easily to any latitude.

4. SOLID NEW EQUATORIAL MUUNI, extra-remindred plant in the stability. No annoying side play or wobble. Adjusts easily to any latitude.

5. SETTING CIRCLES for both right ascension and declination. Handsomely engraved and finished in fine aluminum.

6. 6 x 30 FINDERSCOPE, ACHROMATIC, COATED, with accurate crosshairs and fine focus. Durable cast-aluminum bracket with 6 adjusting screws allows positive collimation.

7. ROTATING TUBE FOR MAXIMUM VERSATILITY AND VIEWING COMFORT. Solid-cast chrome-finished rings are generous 1" wide with felt lining. Newly designed construction, with over-sized knurled adjusting knobs, affords maximum rigidity and allows for quick disassembly and portability, with or without tube.

affords maximum rigidity and allows for quick disassembly and portability, with or without tube.

8. STRIKINGLY HANDSOME WHITE 50" BAKELITE TUBE with porcelainized Duralite finish, durable yet light. Walls are 1/6" thick, completely insulated and anti-reflective blackened inside.

9. BRASS RACK-AND-PINION EYEPIECE HOLDER has precision-cut rack and gear for easier, smoother, more positive focusing. Takes standard 11/4" oculars, negative or positive.

10. STRONG, VIBRATION-FREE, ALL-METAL TRIPOD with easily removable legs. Provides sure, steady support, plus lightweight portability.

#### CRITERION MANUFACTURING CO.

331 Church St., Hartford 1, Conn.

Manufacturers of Quality Optical Instruments

Including . . . • ELECTRIC DRIVE (Patented) SETTING CIRCLES • ROTATING TUBE

A Complete Instrument, No Costly Accessories Needed!

Model RV-6 Complete with Dyn-O-Matic Electric Drive and All Features Described Below

f.o.b. Hartford, Conn. Shipping Wt. 55 lbs. Express Charges Collect No Packing or Crating Charges

**ENJOY IT NOW FOR ONLY \$74.95 DOWN** 

No need to put off the thrills of owning this magnificent in-strument! Send your check or money order today for only \$74.95 as full down payment . . . pay balance plus small carrying charge in your choice of 6, 12, or even 24 monthly payments. Same unconditional guarantee applies, of course. Or order today by sending your check or money order with coupon below.

Sound too good to be true? Then read what these delighted DYNASCOPE owners have to say:

"I never dreamed such a "A friend of mine has a 6-"Congratulations on the brilliant, clear image could inch telescope without elec-excellence of your workbe had with a telescope tric drive, for which he manship. The optics are costing under \$200. It is paid over \$300. He agrees truly amazing. I never excone of these rare bargains that my new DYNASCOPE pected such wonderful perthat you find only once or not only outperforms it, formance." but is a much better-looking and better-built instrument."

B.S.—New Jersey

"A friend of mine has a 6-"Congratulations on the brilliant work."

J.L.—New York

#### Criterion Manufacturing Co. Dept. NL-71, 331 Church St., Hartford 1, Conn.

Please	send	me,	under	your	unconditional	guarantee,	the	RV-6	6"
Dynascope, Full		Full	payment of		\$194.95 is enclosed.				

☐ I prefer your easy terms! Enclosed is \$74.95 as down payment with understanding that I will pay balance (plus small carrying charge) over 6—, 12—, 24— months (check choice). Send FREE ILLUSTRATED LITERATURE describing the RV-6 6"

Dynascope and all the telescopes in the Dynascope line.

City.....State...

### Make over 200 Small Computing and Reasoning Machines with . . .

## **BRAINIAC**®

## ELECTRIC BRAIN CONSTRUCTION KIT, 1960 MODEL

EQUALS THE ORIGINAL 1955 electric brain construction kit PLUS many improvements and additions: over 600 parts-including 116 improved patented wipers so that all switches work well. The BRAINIAC K18 Kit gives full specifications for 201 computing, reasoning, arithmetical, logical, puzzle-solving and game-playing machines . . . 155 BRAINIACS (1957-58-59), etc., 13 TYNIACS (1956), and 33 original GENIACS® (1955).

WITH OUR BRAINIAC KIT K18, you can build over 200 small electric brain machines and toys which "think," compute, reason and display intelligent behavior. Each one works on a single flashlight battery . . . is FUN to make, FUN to use and play with, and TEACHES you something new about electrical computing and reasoning circuits. All connections with nuts and bolts-no soldering required. The Brainiac K18 kit is the result of 12 years' design and development work with miniature mechanical brains including: the original 1955 kit, Tyniacs (1956), Relay Moe (automatic relay machine playing tit-tat-toe-pictured in Life Magazine, March 19, 1956), Simon (miniature automatic dig-

ital computer with 129 relays-see "Simple Simon" by E. C. Berkeley in scientific American, November 1, 1950), Squee (electronic robot squirrel - see "Light Sensitive Electronic Beast" by E. C. Berkeley in Radio Electronics, December 1951), etc.



WHAT CAN YOU MAKE WITH BRAINIAC KIT K18? Over 200 machines including—Logic Machines: Syllogism Prover, Intelligence Test, Boolean Algebra Circuits, Douglas MacDonald's Will Analyzer, A Simple Kalin-Burkhart Logical Truth Calculator, Diagnosing Motor Car Trouble, etc. GAME-PLAYING MACHINES: Tit-Tat-Toe, Nim, Wheeled Bandit, Black Match,

Sundorra 21, etc. Com-PUTERS: To add, subtract, multiply or divide using decimal or binary numbers, Forty-Year Calendar, Prime Number Indicator, Money-Changing Machine, etc. CRYP-TOGRAPHIC MACHINES: Coders, Decoders, Lock with 15,000,000 Combina-

with 15,000,000 Combinations, etc. Puzzle-Solving Machines: The Missionaries and the Cannibals, Age-Guessing Machine, Submarine Rescue Chamber, Daisy Petal Machine, Fox-Hen-Corn & Hired Man, Uranium Space Ship and the Space Pirates, The Three Monkeys Who Spurned Evil, General Alarm at the Fortress of Dreadeerie, etc. Quiz Machine: How to Tell an Aardvark from an Armadillo, The Waxing and the Waning Moon, Polar Air Routes, history, geography, trigonometry, grammar statistics calculus etc. grammar, statistics, calculus, etc.

WHO IS EDMUND C. BERKELEY? Author of Giant Brains or Machines That Think, Wiley, 1949, 270 pp. (15,000 copies sold); Author of Computers: Their Operation and Applications, Reinhold, 1956, 366 pp.; Author of Symbolic Logic and Intelligent Machines, Reinhold, 1959, 203 pp.; Editor & Publisher of the magazine, Computers and Automation; maker and developer of small robots; Fellow of the Society of Actuaries; Secretary (1947-53) of the Association for Computing Machinery; Designer of all the Tyniacs and Brainiacs.

BRAINIAC KIT (1960 MODEL) K18... the kit with limitless possibilities—backed by an organization of 12 years standing in the computer field—\$18.95. (For shipment west of Mississippi, add 80¢; outside U.S., add \$1.80.)

The Brainiac is the smallest and lowest-cost semi-automatic, general-purpose digital computer existing. Many problems in ALL fields of knowledge and business can be programmed for the Brainiac—to the extent that a number of versatile multiple switches can express the problem. We shall be glad to program YOUR OWN problems. Write us—no charge for simple problems, modest charge for complicated ones.

PROGRAMMING YOUR OWN PROBLEMS FOR THE BRAINIAC

## WHAT COMES WITH YOUR BRAINIAC K18 KIT-

Complete Plans, Instructions, Explanations & Hardware:

- Every part needed to build Brainiacs, Tyniacsover 600 pieces including control panel, multiple switch discs, jumpers, improved wipers (Pat. No. 2,848,568), bulbs, sockets, washers, wire, battery and special tools.
- Complete descriptions of 201 experiments and machines in book of 256 pp.
- Over 170 circuit diagrams including 13 exact wiring templates.
- Manual "Brainiacs—Small Electric Brain Machines -Introduction and Explanation" by Edmund C. Berkeley, 1959.
- "Introduction to Boolean Algebra for Circuits and Switching" by Edmund C. Berkeley.
- "How to Go from Brainiacs to Automatic Computers" by Edmund C. Berkeley.
- List of references to computer literature including "Minds and Machines" by W. Sluckin, published by Penguin Books (Baltimore), 1954, 233 pages, and other references.

only \$1 \, 95 ... MORE VALUE • MORE FEATURES

#### 7-Day Full Refund Guarantee If Not Satisfactory

BERKELEY ENTERPRISES, Inc.

815 Washington St., R225, Newtonville 60, Mass. Please send me Brainiac Kit K18. (Returnable in 7 days for full refund if not satisfactory—if in good condition.) I enclose \$ \_\_\_\_\_in full payment.

My name and address are attached