

# MODEL M-10

DC AMPLIFIER

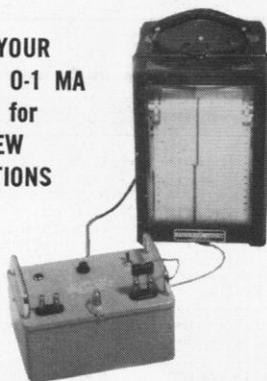
Drift-Free  
Chopper-Stabilized  
Multipurpose  
DC Amplifier for

Laboratory and  
Industrial  
Applications



Versatile, reliable, the M-10 is suitable for many applications where low level DC amplification is required. May operate from either current or voltage source and provide either current or voltage output with proper shunts.

UTILIZE YOUR  
PRESENT 0-1 MA  
Recorder for  
MANY NEW  
APPLICATIONS



The M-10 is ideal for use with 0-1 MA recorders. High output impedance prevents excessive damping. A trim adjustment is provided to calibrate the combination to 1/2%. Linearity is better than 1/2% for the amplifier. (Combination usage shown is with Esterline-Angus 0-1 MA Recorder)

WRITE FOR BULLETIN



**houston**  
**instrument**  
corporation

1717 Clay Ave. • Houston 3, Texas  
CA 5-6964

I do not know the extent of his lecturing at Yale. I do know that Francisco Duran-Reynals was a great teacher and a wonderful human being.

MICHAEL KAPLAN  
*Experimental Psychology Laboratory,  
Creedmoor Institute for Psychobiologic  
Studies, Queens Village, New York*

## Balance in Cultivated Ecosystems

In their very interesting article on "Acrolein for the control of water weeds and disease-carrying water snails" [*Science* 129, 335 (1959)], Overbeek *et al.* describe their experiments in ridding irrigation ditches of water weeds and fresh-water snails by the addition of small amounts of acrolein to the irrigation water. They state, "Treated water, when used for irrigation, did not harm crops. Further studies, on possible acrolein residues in crops and on the toxicity of treated water with respect to farm animals, are being made."

It is reassuring to know that attention is being given to possible toxicity to human beings and farm animals. It would be interesting to know, further, if any studies are contemplated on the effect of this treated water on the soil microbiota in the land that is being irrigated. Soil scientists reiterate constantly the importance of the soil fauna and flora in the development and maintenance in good condition of soils. It would be disastrous indeed to discover, after a few years of ditch-cleaning with this highly toxic substance, that the essential soil biota had been destroyed and that permanent or long-term impairment of large areas of irrigated soils had taken place.

Ecologists interested in the maintenance of a healthy balance in cultivated ecosystems should be much concerned about matters of this sort.

F. R. FOSBERG  
*Falls Church, Virginia*

Fosberg will be glad to learn that in addition to tests of the effect of treated irrigation water on crops, soil microbiological tests have been made and are continuing.

Many hundreds of low-molecular-weight organic chemicals, including acrolein, have been evaluated in our laboratory as soil fungicides, nematocides, and weed killers during the past 12 years. Even at doses many times those presently contemplated, and regardless of whether the chemicals were used as water drenches or as fumigants, none of these materials has had a residual harmful effect on the edaphon.

J. VAN OVERBEEK  
*Shell Development Company,  
Agricultural Research Division,  
Modesto, California*



**1. NO POCKETS** to catch the product. Ball-and-socket connections let product flow straight through without hold-up.

**2. COMPACT** ball and socket joints minimize "dead space" between columns and condensers. Entire Bantam-ware unit occupies only 2.5 sq. ft.

**3. BETTER CLAMPING**—Outer walls of the  $\frac{1}{8}$  joints are cylindrical; permit vice-like gripping by clamps.

**4. MOUNTING FLEXIBILITY**—Ball and socket joints prevent glassware strain while clamping.

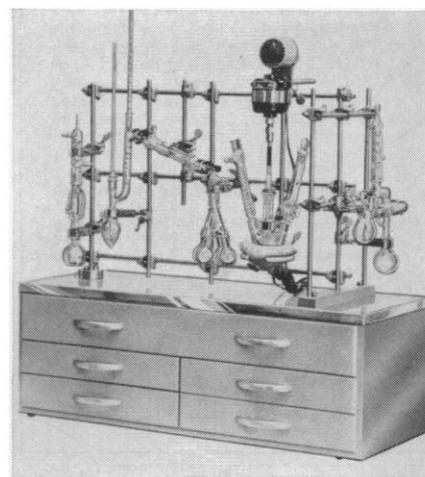
**5. NO-SLIP HOSE CONNECTORS** Serrated design resists slippage due to internal pressure, eliminates makeshift wired-on assemblies.

**6. SPECIAL  $\frac{1}{8}$  JOINTS**—No product-catching bulb below grinding. Outer walls cylindrical for easy clamping. No thin spots.

**7. CORRECT BULB POSITIONING** Adapters permit proper positioning of thermometer bulbs in relation to sidearms, thus assuring accurate temperature readings.

**8. VERSATILE THERMOMETER JOINTS** Use  $\frac{1}{8}$  10/18 or  $\frac{1}{8}$  10/30 thermometers. Adapters, distilling heads, flasks, etc., are designed to take either.

**ORDER this time-saving, work-saving Bantam-ware kit for fractionation, distillation, chromatographic analysis, extraction, filtration, reflux and separation. Catalog No. K-27010: \$440 complete. Write for free Catalog TG-15A.**



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