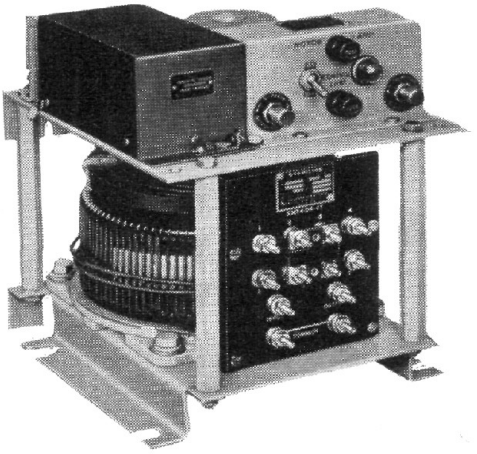
photometer at a wave length of 440 mμ.

Beckman says that the instrument is designed so that it can be adapted by the company for other analyses. Accessories under consideration include a system for analyzing physiological fluids such as blood, plasma, and urine; an analyzer with a fraction collector for preparative scale experiments; and the use of a scintillation counter to measure radioactivity. **P-2**

Automatic Voltage Regulator

A new automatic voltage regulator announced by the Superior Electric Co. is designed for applications requiring control of loads up to 35 amperes. The Model EMT4104U can be used as an independent unit, or as a component with the controls mounted in an apparatus panel and the remaining regulator elements installed in any out-of-the-way place. The control circuit is transistorized.

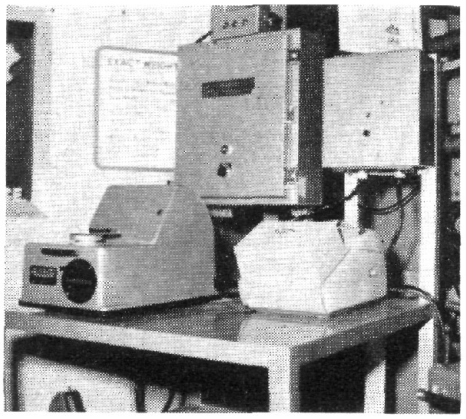


Other features claimed for the unit are zero waveform distortion, low internal impedance, almost-zero phase shift, efficiency better than 98%, and high accuracy. Correction of voltage variations takes 0.1 second per volt-from-nominal. On nominal 120-volt, 50/60-cycle service, input voltage range is 108 to 137 volts and the adjustable output is 110 to 120 volts, 35 amperes, 4.2 KVA. On nominal 240-volt service the input range is 226 to 256 volts, adjustable output is 220 to 240 volts, 35 amperes, 8.4 KVA. **P-3**

Weight Classifier

A version of its Shadowgraph scale which has crystal photocells for producing an electric signal when weight limits are reached is offered by The Exact Weight Scale Co. Each photocell operates a relay at a preset weight value with an accuracy, the company says, better than twice the advertised scale sensitivity. From two to seven cells can be mounted across the optical dial to provide any number of classifications from two to 128.

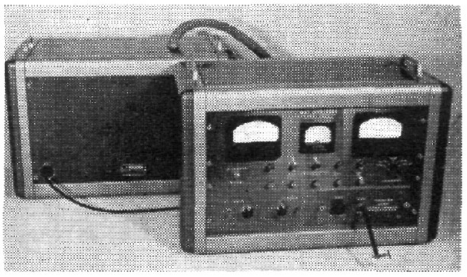
The controller provides visual light signal to indicate weight classification. And it operates relays to open or close circuits for actuating automatic transfer mechanisms, recorders, counters, and remotely controlled machinery or



processes. The company says there is direct correlation between dial reading and photocell transducer. It also says that the printed circuit transistor amplifier provides extreme stability, independent of normal line voltage variations. **P-4**

Nitrogen Gas Analyzer

The nitrogen gas analyzer offered by The Waters Corp. continuously measures per cent of nitrogen in gas mixtures. The gas sample is admitted through a needle valve and passes through a discharge tube at low pressure. In the discharge tube radio fre-



quency energy instead of direct current excites the nitrogen gas, causing a uniform ionization glow or discharge. The intensity of the discharge at characteristic wave lengths is picked up through the proper filter by a photoelectric cell. The output of the photoelectric cell is translated into percentage nitrogen content by the control circuit.

Readings are indicated on a base scale deflection of 0% to 100%, with a vernier meter for full scale deflection for any 20% of the base scale. Differences in nitrogen content at constant temperature and saturated with water