· New Machines and Gadgets ·

DIRECT READING spectrometer measures electronically the concentration of elements in alloys and automatically records the results. This electronic method of measuring the intensity of spectrum lines eliminates the necessity for photographic and developing equipment and an expensive microphotometer. Science News Letter, January 5, 1946

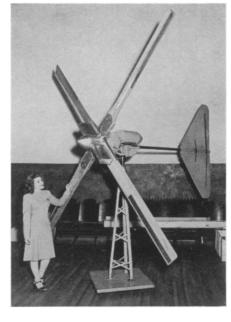
☆ POWERFUL ELECTRO MAGNET, with a maximum 4,000-pound attraction between its poles spaced one-half inch apart, has two coils of copper wire wound 6,400 times around an iron core. The enormous heat generated by the current is carried off by circulating 15 gallons of oil a minute through the coils. Science News Letter, January 5, 1946

MODULATOR glow tube of the crater type, a cold cathode recorder tube that is rugged and dependable for facsimile and sound-on-film recording, is operated by the single-ended output stage of a push-pull amplifier. It provides a modulated, high-intensity point-of-light source.

Science News Letter, January 5, 1946

STIRRER-TYPE superpressure apparatus for laboratory use operates at pressures up to 10,000 pounds per square inch and at temperatures up to 750 degrees Fahrenheit. It is available in various sizes. It is heated by an electric jacket, and its stirrer is operated by a variable-speed motor.

Science News Letter, January 5, 1946



WIND-DRIVEN electric generator for 32-volt farm lighting system will charge storage batteries in winds as low as five miles an hour. When high winds are blowing an automatic governor turns to an ineffective angle two of the four blades shown in the picture, to prevent over-charging.

Science News Letter, January 5, 1946

ROTARY-DRILL bit bores holes in the earth for mine shafts six feet in diameter. It can be used where the earth is composed of loose and water-saturated sand and clay. The rig is similar to that used in oil fields, including a derrick and huge drill.

Science News Letter, January 5, 1946

EXTENSION for half-inch electric motor shafts, called an arbor by mechanics, makes it possible to use a grinding wheel on the main shaft, and rag or wire wheels, or circular saws, on the arbor. The arbor fits well over and onto the main motor shaft.

Science News Letter, January 5, 1946

SLIDE MOUNT for photographers' use holds a photographic slide firmly in place and permits its removal without tearing the mount. No glue, hot iron or water is required to hold the slide in position. The mount, in which the film is inserted, can be used over and over again.

Science News Letter, January 5, 1946

If you want more information on the new things described here, send a three-cent stamp to SCIENCE NEWS LETTER, 1719 N St., N. W., Washington 6, D. C., and ask for Gadget Bulletin 292.

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