

• New Ideas and Gadgets •

Ask for Gadget Bulletin 1372 for source information. Send self-addressed stamped envelope to SCIENCE NEWS, 1719 N St., N.W., Washington, D.C. 20036.

⊗ **ILLUMINATED MAGNIFIER** is a precision magnifier with built-in illumination. A small electric bulb mounted in the handle spotlights the magnified field of vision, providing greater clarity. Battery models are made for complete portability, while electrical models suitable for AC-DC plug-in are available for bench-type work. A variety of interchangeable parts is available to adapt to different applications.

⊗ **WHEELED BASE** for large household plants helps protect floors and rugs from being damaged and makes plants readily movable from place to place. The base which is circular and brass-plated has three ball bearing wheels, and comes in diameters of eight, 11 and 18 inches supporting weights of 150, 300 and 400 pounds respectively.

⊗ **BATH TEMPERATURE CONTROL** is a compact unit, 13½x5½x5 inches in size, in an aluminum housing that can maintain heat, or cool a bath temperature of any liquid from 0 degrees C. to 300 degrees C. A stainless steel immersion heater and mechanical stirrer extend from the housing for heating, while for cooling an accessory pump circulates the bath fluid through a cooling medium.



⊗ **STRAPPING TOOL**, shown above, is an air-powered tool that welds nylon straps by high frequency vibrations. The easy-to-handle tool, weighing only seven pounds, makes a strong unbreakable seal in about one second. The weld will withstand abuse in shipping, is flat, nonsnagging and minimizes indentation of the packages when stacked. The tool is available on a rental basis.

⊗ **FOUR-SPRAY SPRINKLER** directs the water where needed. The four-nozzle unit molded of sturdy lightweight plastic, delivers a soft mist-like spray in four separate patterns as desired—half circle, rectangle, three-quarter or full circle. Easily spiked into turf or garden bed, the sprayer, weighing about one ounce, stands about four and three-quarters inches high.

⊗ **ELECTRIC WATER STILL** for the laboratory provides an economical and continuous source of distilled or redistilled tap water is compactly housed in a portable cabinet that can be mounted on bench or wall. The unit provides high purity water suitable for biological and analytical work. Only 31½ inches high, the distiller yields more than two liters of water per hour. The still is powered by 110 volt current.

⊗ **GLOWING LIGHT SWITCH PLATE** requires no batteries or electricity. Producing a lavender glow at night, it eliminates fumbling around for a switch in the dark. Easy to install, the plate stores its own light energy by being exposed to sunlight for one second or to lights at night for several seconds.

• Doctors Are Reading •

Transferable Resistance to Drugs Needs Survey

➤ **THE GREATEST** danger from drugs may be that they will stop working entirely. An extensive national survey of the problem of transferable drug resistance is an obvious need, a Harvard Medical School staff member warned in the *New England Journal of Medicine*, 275:625, 1966.

Dr. David H. Smith of the Department of Bacteriology and Immunology, who has previously reported drug resistance in bacteria isolated from 32 children with salmonella infections, said transferable R factors constitute a major public-health problem in the United States and in other countries.

"The widespread use of antibacterial drugs in agricultural feeds in this country and the incidence of salmonella infections in farm animals dictate that such a survey include specimens from agricultural as well as those from medical sources," Dr. Smith reported.

New Isotope Compound Helps Quicker Diagnosis

➤ **THE TIME** necessary for examination and radiation exposure is being greatly reduced with the development of a technique using the special radioactive compound known as technetium 99m in combination with a gamma scintillation camera.

Technetium 99m. is "tagged" on to various other compounds, and acts as the radioactive agent for radioisotope scanning procedures.

It is injected intravenously into the patient and picked up by the organ to be examined. The gamma camera is then

used to record this "pickup" of the isotope compound on film. Diagnosis is made on the basis of the varying degrees of pickup and distribution shown on the resulting picture.

Dr. Alexander Gottschalk of the department of radiology, University of Chicago, reported in the *American Journal of Roentgenology*. Radium Therapy and Nuclear Medicine, that technetium 99m is particularly useful for scanning because it is "penetrating enough to be used to scan organs in depth."

This technique has made easier and quicker diagnosis of the thyroid, brain, kidney, bone marrow, placenta and the lung and heart area, besides making possible accurate diagnosis of moving organs because it is possible to use exposures so short they can be made while the patient holds his breath thus avoiding any resolution loss caused by a moving organ.

Sickle Cell Anemia Changes

➤ **A NEW VARIETY** of sickle cell anemia with mild symptoms has been reported by researchers at the University of Tennessee College of Medicine, Memphis. Announcement of the findings reported by Dr. Alfred P. Kraus at the Third International Congress of Human Genetics at the University of Chicago was made in the Medical News section of the *Journal of the American Medical Association* 197:43, 1966.

Dr. Kraus and his co-workers, Drs. T. Miyaji, I. Luchi and Lorraine M. Kraus found that mitigation of the usual symptoms of the anemia is apparently due to a variation in the alpha chain of hemoglobin.