New Machines and Gadgets

A ROBOT that distinguishes colors in the same way that the human eye does, has been developed for accurate measurement and matching of colors. Three color filters and three photoelectric cells or electric eyes measure the intensities of the three primary colors in the sample the color of which is being determined. Fading can thus be measured without preserving an unfaded piece of the sample. Whiteness or yellowness of near-white surfaces can also be measured.

Science News Letter, November 14, 1942

HOW TO KEEP your carpet smooth with lamp cords running under it in every direction is shown by a recent patent. The invention is an under-carpet pad with grooves in it running lengthwise and crosswise. The wires are laid in these grooves and are then not only out of sight but cannot even be felt. At intersections of the grooves, curved spaces are provided so that the direction of a wire may be changed without making a sharp bend.

Science News Letter, November 14, 1942

THE CARRYING CASE of a hand movie camera is made to provide support for the camera in an invention recently patented. As the camera is drawn from the case, its lower front edge becomes hinged to the upper front edge of the case. Consequently, when the camera is held at eye level, the back of the case drops down and and rests on the chest of the operator. The case thus forms a diagonal brace which supports and steadies the front end of the camera.

Science News Letter, November 14, 1942

A PLASTIC FUSE for a trench mortar shell is what the young lady in the picture is holding. Every such fuse saves a pound of aluminum for our airplanes. Since they are being manufactured in



huge quantities, the saving of aluminum is considerable. The plastic used was specially developed for the purpose. It had to be extra hard, and maintain its dimensions accurately in all weathers.

Science News Letter, November 14, 1942

NEW CHEMICALS stimulate the germination of seeds, induce new root formation of cuttings, improve the general growth, and prevent premature dropping of fruit. They act in the same way that synthetic hormones do, but are safer. The hormones are tricky. A little too much or too long a treatment, and growth is stunted rather than promoted and other damage is done. The chemicals accomplish all that hormones do, the inventor claims, but allow a much wider margin of safety.

Science News Letter, November 14, 1942
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their legs in plaster casts for from 16 to 20 weeks, the men began stepping guardedly about the ward on the second or third day. Every one was able eventually to walk normally and without pain.

Weary of years of limping, a 45-year-old ex-service man came to the Naval hospital for help. His right thigh bone had been broken 17 years before. The injured leg was two and a half inches shorter than the other, and extremely painful to walk on. The bone was cut through obliquely, and a Stader splint applied. By turning the screws a little every few days, the bone and the muscles were gradually and painlessly lengthened. In the first two weeks, the veteran's leg gained one and a quarter inches. Now he can walk in comfort and without the trace of a limp—for the first time in 17 years.

Applying the splint requires anaesthesia, but once it is in place only very small dressings are necessary, and sometimes even these are not used after the first 48 hours. The tissue which closes around the pins keeps the holes free of infection. The splint should be applied only by surgeons who have had training in its use.

Few, if any, Stader splints will be available to civilians until after the war, for the entire output of the instrument company now making the splints is being reserved for our service men. But once it is available for civilian use, the splint will be of incalculable benefit to people with broken legs, arms and jaws. It will mean less pain, less expensive nursing and hospital care, less time lost from precious jobs. Hundreds of planes, tanks, and anti-aircraft guns could be

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