

• New Machines and Gadgets •

⚙️ **ARTIFICIAL SPICE** oils are now available as substitutes for cassia, nutmeg, anise and Ceylon cinnamon. They closely simulate the natural oils in odor and taste and strength.

Science News Letter, June 19, 1943

⚙️ **PLASTIC LENSES** used in the most powerful portable focusing spotlights yet designed transmit about 90 per cent of the light rays. The spotlight in which these lenses are used weighs only about four pounds and uses a six-volt lantern battery.

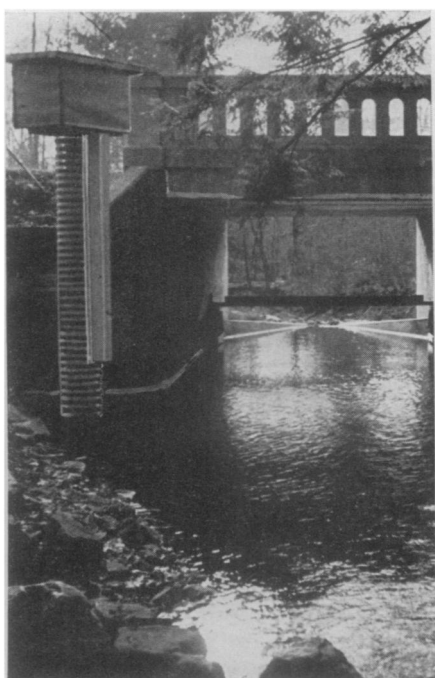
Science News Letter, June 19, 1943

⚙️ **POWERLINE TALKIE** units have been developed for inter-office and inter-plant communication. No special wiring is necessary. The electronic units are plugged into the existing electric light circuits.

Science News Letter, June 19, 1943

⚙️ **THE BOX** in the upper left of the picture shields an automatic water level recorder, part of a new method of continuously measuring the amount of water a stream carries. New data on small watershed drainage thus obtained will be valuable in predicting flash floods, determining surface water supplies and selecting the size and type of highway and railway drainage structures.

Science News Letter, June 19, 1943



⚙️ **PLASTIC TUBING** now replaces rubber tubing in creameries, breweries and in similar industries. It is reported to have the same strength as rubber and the same resistance to heat. It is made either colored or transparent. Any obstruction in the transparent tubing can be located quickly.

Science News Letter, June 19, 1943

⚙️ **POLISHING BUTTONS**, an ancient task of soldiering, is now simplified by a bit of plastic sheet. Slipped between the button and uniform fabric, the plastic shields the cloth from being soiled by excess polish.

Science News Letter, June 19, 1943

⚙️ **A SPECIAL GAUGE** measures the deflection of tires on a loaded truck. It avoids unnecessary tire wear by quickly showing what change in air pressure is needed for a given load.

Science News Letter, June 19, 1943

⚙️ **SCRAMBLING** an egg without removing it from the shell is an achievement recently patented. A needle with two flat metal springs is inserted through the shell, the springs spread, and rotation does the scrambling.

Science News Letter, June 19, 1943

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 161.

PSYCHOLOGY

WAACs Are Tested on Their Knowledge of Tools

➤ **PSYCHOLOGICAL TESTS** are given women applying for acceptance in the WAAC by the same section of the Adjutant General's Office that administers tests to men selected by local boards for Army service, but the tests differ in several respects. They are described in *Science* (May 28).

The first given the women is a mental alertness test to screen out the unfit. It includes items of six types: information, vocabulary, arithmetic, judgment, proverb interpretation, and comprehension of graphs and tables. This is followed by a classification test, an aptitude test, and a proficiency test.

The classification test is similar to that given the men. The aptitude tests used concern mechanical aptitudes, clerical aptitudes, and a special test for radiotele-

• RADIO

Saturday, June 26, 1:30 p.m., EWT

"Adventures in Science" with Watson Davis, director of Science Service, over Columbia Broadcasting System.

Col. Rohland Isker, of the U. S. Army Quartermaster Corps, who is in charge of food research for the Army, will speak on "New Kinds of Food for the Army."

graph operators. The particular mechanical aptitude test given the women is known in the Army as MA-4. It includes the recognition of tools and an understanding of mechanics.

The clerical aptitude tests are intended to determine aptitudes and ability in general clerical work. The radiotelegraph operator aptitude test is the Army ROA-1, X-1, which contains 156 items each consisting of two code patterns sounded in succession. The person being tested indicates if the two patterns are the same or different. These code items are on phonograph records to facilitate group testing.

Written and oral tests are then given to test the women in radio repair work, automobile repair, and other matters requiring mechanical skill.

Science News Letter, June 19, 1943

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