

New Machines And Gadgets

Novel Things for Better Living

A bakery in Sweden, where gasoline is rationed, has solved the problem of fueling its 50 cars and trucks by utilizing the ethyl alcohol fumes rising from the bread ovens. Special equipment, probably the first of its kind in the world, collects the steam and distills it to provide 96% alcohol. The cost of the fuel is approximately 33 cents per gallon.

Flickering fluorescent lamps will be a thing of the past when a new protective starter is universally applied. When a lamp grows old it begins a constant flickering and the starter, continually trying to light a lamp that won't light, gets worn out, too. The new starter prevents all this by promptly cutting the light out of the circuit when it begins to flicker.

The pupil of your eye is a very accurate measurer of light intensity. This is made use of in a little patented device for timing camera exposures. A small mirror has a number of circular spots of increasing size along its lower edge, representing different sizes of the eye pupil. You hold the mirror in front of you, look first at the object to be photographed, then at yourself in the mirror, and match the pupil size of your eye with one of the spots on the mirror. This gives the light intensity according to which the exposure is to be timed. This device is of course much simpler and cheaper than a photoelectric cell meter, and is claimed to be very accurate.

Fiberglass wool and semi-rigid fiberglass insulating board are streaming out of this machine in a great glass factory. The stream in back is the fiberglass board. These glass products are used for heat and sound insulation, particularly in the great windowless walls of the new Army bomber plants, some of which are three-quarters of a mile



long. They absorb 60 to 75 per cent. of factory noises. The windowless walls make possible a complete blackout in time of war without interrupting the work of building airplanes.

A new thermostatic robot which regulates the amount of engine heat supplied to the carburetor saves gasoline. At low speeds much heat is required; at top speeds none at all. At intermediate speeds the heat should be regulated according to the speed, and this the robot does. It also takes care of the wide variations between summer and winter temperatures. By this precise regulation of the heat supplied to the carburetor, more complete vaporization of the liquid and more even distribution of the gas to the cylinders are secured. Both make for economy of fuel.

Frequency modulation, the radio that eliminates static, is on the air. Several broadcasting stations are using this method and their number is increasing. Meanwhile, combination receivers are being manufactured that can be used for both the usual amplitude modulated, and for the frequency modulated sta-

tions. Some of these new receivers have four bands, the usual three for the ordinary long and short wave broadcasts, and one for the frequency modulated stations. The FM band extends from 42 to 50 megacycles.

Forever blowing bubbles is a realistic little minnow composed of wood and rubber. The bubbles are provided by a capsule of Seidlitz powder or similar material in his little inside. He has a nose, a mouth, eyes and gills, and darts up and down according as the line is pulled in or slacked off. Also he has a perfectly good U. S. patent. The fish should be crazy about him.

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, D. C., and ask for Gadget Bulletin 76. Science News Letter, October 25, 1941



SCIENCE CLUBS OF AMERICA

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NEWS OF CLUBS

The proximity of the U. S. Technical Air School to the Sacred Heart Academy of Biloxi, Miss., has stimulated the Science Club of the Academy to greater activity, according to a report of Sister M. Frances Xavier, R.S.M., sponsor of the club.

Cesar Timo Iaria of R. Cristiana Viana, 498, Sao Paulo, SP., Brasil is an "unconditional admirer of scientifically minded American youth" and hopes some day to found an organization similar to Science Clubs of America. Meanwhile, he would like to maintain correspondence with those in America and other lands having scientific inclinations.

In a recent article by Harold S. Tuttle, "Do Junior High Schools Cultivate Desirable Aptitudes?" appearing in *The Clearing House*, we find that the ranking interests of Junior High School students are: first, reading newspapers; second, club activities. Dr. Tuttle then lists other interests based upon a study of 7,000 pupils in 50 schools distributed among 18 states and representing every section of the country. No wonder, then, that the science clubs movement, although usually an extra-curricular activity, plays such a prominent part in education and adaptation to the curriculum of life. Dr. Tuttle is a member of the faculty of the School of Education, College of the City of New York.

The Biology Club of Greenville Senior High School, Greenville, Texas, D. F. Johnson, sponsor, is divided into five distinct units corresponding with the class periods, each of which is a separate club. They plan programs for broadening textbooks study, photograph nature scenes, make field trips and work upon and demonstrate biological techniques and projects.

The Biology Taxidermy Research Club of Enid Senior High School, Enid, Okla., has become affiliated with Science Clubs of America. Last year one of the members of this club sent an exhibit to The American Institute Science and Engineering Fair held in the American Museum of Natural History in New York City. This exhibit of stuffed birds, deer-foot knives, thermometers, ash trays rattlesnake skeleton necklaces, etc., was complimented most highly by museum curators. It won a prize. This club is also a member of the Oklahoma Junior Academy of Science and two of its former members have received recognition in the A.A.A.S. of Oklahoma. All of this is a mighty high tribute to Merle M. Boyer, sponsor.

Clubs are invited to become affiliated with SCA for a nominal \$2 for 20 members or less. You can become an associate of SCA for 25 cents, which includes a copy of the 128-page *Science Handbook for 1942*. Address: Science Clubs of America, 1719 N St., N.W., Washington, D. C.

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