earl Hospital. Their studies covered the period 1930-35 and 7,186 admissions in the Lakeside Hospital, and also the period 1933-39 and 13,557 admissions in the Cincinnati General Hospital. No re-admission of pellagra cases was included.

Another study, this in far-off India, revealed that 0.65% of all cases admitted to the medical wards of a general hospital in the Province of Madras, suffered from pellagra.

The three American physicians conclude: "This is only an indication of the worldwide prevalence of pellagra. Whenever this disease is sought, it is found among the debilitated patients of large hospitals."

". . . Furthermore, it is at once apparent that the disease is by no means confined to certain regions of the American Southern states but is found in areas where it is not generally thought of as an important problem."

The disease pellagra is characterized by dermatitis, diarrhea, and mental disturbances. It is caused by lack of a vitamin known as nicotinic acid or Niacin. Once thought hopeless, the disease is now effectively cured by treatment with Niacin, and proper diet.

Food fads or ill-advised reducing diets, addiction to alcohol where the victim does not eat properly, are frequently causes of pellagra.

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### New Machines And Gadgets

## Novel Things for War-Time Living

A match with every cigaret is insured by a recent patent. The object is accomplished by the simple device of having a paper match attached to each cigaret in the process of manufacture. Underlying the match is a strip of igniting material. The lower end of the match is glued to this, and the strip is attached to the end of the cigaret. Both are thus easily detached.

Plastic spacers, each of a different color by which the desired thickness can at once be selected without the making of measurements, will speed up milling machine operations. Being made of plastic, cellulose acetate, they will also save the brass and steel formerly employed.

Old documents can be restored and preserved in the following way. The paper is first immersed in lime water to remove discoloration, dust and grease. Next it is placed in a calcium carbonate solution and dried. Then it is placed between two thin sheets of cellulose acetate foil, covered in turn by sheets of tracing cloth. The whole is then put in a special press where heat and pressure fuse them into practically one sheet which will last indefinitely without deterioration. This method is used at the Maryland Hall of Records.



The guard in the picture is reporting "All's Well" to a central guard station in one of our war factories, protected by an acoustic fence. This fence is all ears. If tampered with anywhere, sounds are heard at the central station and an annunciator indicates where the disturbance took place. Even a dog crawling under the fence sets off the alarm. Although the guard in the picture is a message from any point along the fence by tapping it out in code.

Bowling is good exercise, but may be a bit too strenuous for some. To relieve the latter, a projector has been invented and patented which starts the ball rolling. You only have to aim it. In another patent, the inventor even provides a loading machine, so that you don't have to handle the balls, personally, at all. It appears the whole game could be played from a wheel chair.

Coffee flakes may be added to your morning menu when peace brings back the blessings of all the coffee you want (and double sugar, too, if you like it). But you will not eat it as a cereal. You will brew your morning beverage with it in the usual way. A patent has just

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#### RADIO

Saturday, June 6, 1:30 p.m., EWT

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

Professor Bart J. Bok, of Harvard University, will talk on "Counting Stars."

Tuesday, June 2, 7:30 p.m., EWT

Science Clubs of America programs over WRUL, Boston, on 6.04, 9.70 and 11.73 megacycles.

One in a series of regular periods over this short wave station to serve science clubs, particularly in the high schools, throughout the Americas. Have your science group listen in at this time.

been granted on a process of converting moistened green coffee into flat flakes by pressure rolling before roasting. The inventor states that in this form the coffee needs far less drastic roasting than it does in the whole bean condition, and that it has aroma superior to that achieved by present processing methods.

A retractable fire escape ladder is the offering of a recent patent. Built on the principle of the lazy tongs, it can be pulled up or extended by turning a crank. It is intended of course for the lower-most ladder of a fire escape.

Tents can be made more comfortable, in both hot weather and cold, by making them out of a double layer of duck with a filling of rock wool quilted in between, suggests a former Army officer in the first World War. The fabric turns rain and prevents the rock wool from shredding to bits, and the rock wool, already a notable success in house insulation, keeps heat out in summer and warmth in during winter.

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 106.

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### SCIENCE CLUBS OF AMERICA

Sponsored by Science Service

#### NEWS OF CLUBS

ST. LOUIS, Mo.—Diseases likely to become prevalent during war time is the subject of a group exhibit which has been made by the Agassiz Chapter of the Junior Academy of Science of St. Louis at Soldan High School. Members of this science club have also made individual exhibits which include clay and papier-mache models of hydra and various fungi. Much material has been added to the collections of herbs, legumes, seeds and wools, and experimental work has been conduuted on the growth of plants. Katherine Pfeifer, biology teacher, is sponsor of this club.

KINGSTON, N. Y.—A three-day science exhibit was staged in the science classrooms of the Myron J. Mitchell School, here. The Edison Science Club at this school was host and sponsored the exhibit. Just before Easter the club attended a Science Fair in such large numbers that two large buses were needed to transport the group to the center of activities 50 miles away. Ione Kinkade is sponsor of the club's activities

SIKESTON, Mo.—During the past few months members of the Sikeston Science Society at

Sikeston High School, constructed three group projects of which they are justly proud. The first is a stroboscope which can be used to make rapidly rotating objects appear to stand still or move backward. The others are a radio receiver and a portable receiver. This club meets twice a month; conducts assembly programs and stages a science show at the Junior Carnivals. The sponsor is Paul H. Roberts, head of science department.

HAMMOND, Ind.—At least one good enlargement made by a club member will be considered a mark of proficiency in photography by members of the AmPho Club at Oliver B. Morton Junior High School. In the two-section program arranged by members of this club each individual of the photo section learns how to make proper exposures, develop films, make contact prints and blow-ups. How to mix chemicals for developing pictures and how to produce photomontages is also learned by those who delve into photographic activities still further.

photographic activities still further.

The biology section of the club has set up a committee on conservation. Other committees are conducting experiments in heredity; artificial pollination; or supply live material for laboratory observation and classroom work. Both sections of the club have voted to award Science Clubs of America pins for outstanding work in any field of scientific endeavor. Seventeen awards will be made this year. Arthur R. Gibson and Max Stark are the sponsors.

ROCKFORD, Ill.—A committee of three members of the Young Scientific Americans at Roose-

velt Junior High School, has been responsible for setting up the experimental demonstrations for a 35-minute period weekly. Naturally, such an activity soon exhausts the supply of effects which could be set up complete within the week and with limited equipment. The members would appreciate suggestions for new experiments suitable for lecture table demonstrations. Melva U. Olson, head of science department, sponsors the activities.

BARKER, N. Y.—Each week a committee of the Science Research Club at Barker Central School records the relative humidity, temperature, barometric readings and wind direction and prognosticates the coming weather. This information is posted for the benefit of the student body. The other projects of this club vary from airplane building on one hand to experiments with colchicine—a chemical substance which is responsible for many mysterious effects on plant growths. Groups of students conduct the experimental demonstrations at each regular Friday meeting of the club. Thus, every member has an opportunity to participate. Priscilla Wolff, head of the science department, is sponsor of this club.

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. Address: Science Clubs of America, 1719 N St., N.W., Washington, D. C.

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GENERAL SCIENCE

## Bureau of Standards Head Elected to National Academy

TWO men whose scientific efforts in peace-time have done much toward preparing the nation for its present all out war effort are among the 15 newly elected members of the National Academy of Sciences, chosen at the annual meeting of the Academy. They are Dr. Lyman J. Briggs, director of the National Bureau of Standards, and Dr. Thomas Midgley, Jr., of Worthington, Ohio, noted chemist who developed the now all but universally used tetra ethyl lead gasoline.

Election as Foreign Associate of the Academy, one of the highest honors in American science that can be conferred on a foreigner, went this year to only one person, a Chinese: Dr. Robert K. S. Lim of Pieping Union Medical College. (See SNL, May 23)

Chemists predominate among newly elected members, constituting more than a third of the total number. The new members are: Dr. Homer B. Adkins, University of Wisconsin, chemistry; Dr. Lyman J. Briggs, National Bureau of Standards, physics; Dr. H. T. Clarke, Columbia University, chemistry; Dr. Ralph E. Cleland, Indiana University, botany; Dr. Charles H. Danforth, Stanford University, anatomy; Dr. C. A. Elvehjem, University of Wisconsin,

agricultural chemistry; Dr. Michael Heidelberger, Columbia University, chemistry; Dr. John G. Kirkwood, Cornell University, physical chemistry; Dr. Paul D. Merica, New York City, metallurgy; Dr. Thomas Midgley, Jr., Worthington, Ohio, chemistry; Dr. Francis D. Murnaghan, the Johns Hopkins University, mathematics; Dr. John Torrence Tate, University of Minnesota, physics; Dr. Alfred M. Tozzer, Harvard University, anthropology; Dr. Ernest E. Tyzzer, Harvard Medical School, pathology; Dr. Selman A. Waksman, New Jersey Agricultural Experiment Station, agricultural microbiology.

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