

Laurels For Government Scientists

General Science

Congressional Bill Provides For Two Medals

THE government is preparing to heap long over-due laurels upon genius, hard work, and bravery in the field of science.

A bill shortly to be reported out from the House committee on the Library will allow the President to decorate men and women who, while in the employ of the Federal Government, have "made outstanding contributions to the advancement of scientific knowledge or the application of its truths in a practical way for the welfare of the human race and to citizens who, while in the em-

ploy of the Federal Government, have rendered conspicuous service to humanity at the voluntary risk of life or health over and above the ordinary risks of duty."

There will be two medals. For the scientist who has made a specific contribution to the knowledge of the world, there will be the Thomas Jefferson Medal of Honor For Distinguished Work in Science. This medal is named after the President of the United States who was an early patron of science, engaged in some scientific work and sent Lewis and Clarke on their famous explorations.

The Jesse W. Lazear Medal of Honor for Distinguished Self-Sacrifice for Humanity will be the medal which would be awarded to those who risk life and health bravely that the cause of science may be advanced. This medal is named after the doctor who, as a member of the famous Yellow Fever Commission, allowed an infected mosquito to bite him and give him a fatal case of the disease which was conquered through the information that this and similar heroic sacrifices gave to medical science.

Only three medals in each class

The Answer Is In This Issue

How are Government *scientists* to be honored? p. 402—How has *ice* been made to *cool* faster? p. 402—What should you do for an *unconscious* person? p. 403—What goes in the *first-aid* kit? p. 404—Why does *halo* around the moon predict *rain*? p. 405—How much *larger* than a *planet* is a very large *star*? p. 405—How can *meningitis* be prevented? p. 408—How do *X-rays* affect white blood *cells*? p. 411—What is the *fundamental* stuff of the *universe*? p. 414.

will be awarded each year by terms of this bill, and the National Academy of Sciences will pass on names recommended to it by heads of departments and independent offices of the Government.

It is conceivable that one person might be awarded both medals. The honored persons receiving these medals would, in addition, receive \$1000 each.

Science News-Letter, June 28, 1930

Speed Cooling

SCIENCE has produced flakes of ice which would be ideal for cooling beverages and home ice cream freezers, but they are being applied to large scale industrial processes of chemical engineering.

Flake ice is much more useful than block ice and even crushed ice for many chemical purposes because it melts so fast. Ten pounds of flake ice will melt twelve and a half times as fast as a 10-pound block, Crosby Field told the American Institute of Chemical Engineers at their recent meeting. Thus it will cool a chemical reaction generating heat much faster than other forms of ice.

"The new ice looks very much like broken peanut brittle except for color," Mr. Field said. "A 300-pound standard cake of ice has a surface area of 20.7 square feet whereas 300 pounds of one-eighth inch thick flake ice has 1,000 square feet of surface, an area nearly 50 times as great. But the effective ratio of surface area in use is far greater than that indicated by these figures because the surface of the flakes remains practically unchanged as they melt while the area of a block gets much smaller."

Flake ice is formed on a drum full of brine that rotates in water.

Engineering

Science News-Letter, June 28, 1930

Fewer Sun Spots

SPOTS on the sun are now becoming fewer and will continue to decrease for several years, until the minimum of the spot cycle is past, members of the Astronomical Society of the Pacific, meeting with the Pacific Division of the American Association for the Advancement of Science, were told. Dr. Seth B. Nicholson and Elizabeth Sternberg, of the Mt. Wilson Observatory, told of their studies of the sun.

Dr. Nicholson stated that the activity of the sun, which varies directly with the number of spots, was less in 1929 than 1928, while it appears that the maximum for the cycle came early in 1927. Judged by the numbers of spots, at this maximum the sun was not as spotted as at the previous ones. The astronomer expresses the spottedness by what is called the Wolf number. The maximum for this cycle was 77.8, said Dr. Nicholson, while for the preceding cycle it was 103.9. The three maxima before that gave values for the Wolf numbers of 63.5, 84.9 and 63.7. However, it was pointed out that since 1926 the numbers of spots have been nearly the same. Thus, while the sun at no one time had as many spots as previously, the total numbers may have been rather high.

Astronomy

Science News-Letter, June 28, 1930



SCIENCE NEWS-LETTER, The Weekly Summary of Current Science. Published by Science Service, Inc., the Institution for the Popularization of Science organized under the auspices of the National Academy of Sciences, the National Research Council and the American Association for the Advancement of Science.

Edited by Watson Davis.

Publication Office, 1918 Harford Ave., Baltimore, Md. Editorial and Executive Office, 21st and B Sts., N. W., Washington, D. C. Address

all communications to Washington, D. C. Cable address: Scienserv, Washington.

Entered as second class matter October 1, 1926, at the postoffice at Baltimore, Md., under the act of March 3, 1879. Established in mimeographed form March 13, 1922. Title registered as trade-mark, U. S. Patent Office.

Subscription rate—\$5.00 a year postpaid. 15 cents a copy. Ten or more copies to same address, 5 cents a copy. Special reduced subscription rates are available to members of the American Association for the Advancement of Science.

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