

of artificial respiration. Begin at once. A moment's delay is serious.

Continue the artificial respiration. If necessary, continue two hours or longer without interruption until natural breathing is restored. If natural breathing stops after being restored, use artificial respiration again.

Do not give the patient any liquid, until he is fully conscious.

Give him fresh air, but keep his body warm.

Send for the nearest doctor as soon as the accident is discovered.

The members of the committee reporting to the Bureau of Mines are as follows: Dr. W. B. Cannon, chairman, professor of physiology, Harvard University; Dr. George W. Crile, professor of surgery, Western Reserve University, Cleveland, Ohio; Dr. Joseph Erlanger, professor of physiology, Washington University, St. Louis; Dr. Yandell Henderson, professor of physiology, Yale University; and Dr. S. J. Meltzer, head of the department of physiology and pharmacology, Rockefeller Institute for Medical Research.

AWARDS OF THE JOHN SCOTT MEDAL

THE city of Philadelphia, acting on the recommendation of The Franklin Institute, has awarded the John Scott Legacy Medal and Premium to Elmer Ambrose Sperry, of New York, N. Y., for his gyro compass. On battleships under action, the shifting of large masses of magnetic material precludes the use of the magnetic compass, and even on ordinary iron vessels, the material of the ship and its disposition must be compensated for. The gyro compass is entirely non-magnetic and is unaffected by the proximity of iron. For some years Mr. Sperry has devoted practically his whole time to overcoming the numerous physical difficulties involved in the adaptation of a gyroscope to a ship's compass in the place of a magnetic needle. He has been able to make an instrument which automatically corrects for the speed and direction of the vessel, and which is unaffected by the rolling of the ship in a heavy sea. His compass may be made in the form of a master compass which may be made to actuate secondary or repeater compasses mounted in any

desired part of the vessel. On naval vessels, such an arrangement is very desirable, as the master compass may be installed behind heavy armor plate and protected from damage, and may still be available when all the secondary compasses are destroyed.

An award of the John Scott Legacy Medal and Premium has also been made to Arthur Atwater Kent, of Rosemont, Pa., for his "unisparker." The unisparker is an essential element of the Atwater Kent Ignition System for automobiles, and consists of a contact-breaker, governor and distributor, arranged in one structure. The contact-breaker is in the primary of a non-trembler coil circuit and is so designed as to be operative only when the engine runs in one direction, thus preventing backfiring. The governor automatically advances and retards the spark according to the requirements of the engine. The distributor is in the secondary circuit of the coil and distributes the sparks to the several cylinders. All the parts of the device are especially designed for durability. The contact points are of tungsten and are of large area. The current in the primary circuit can be reversed at will, changing the polarity of the contacts and preventing their disintegration.

PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES

IN January, 1915, the National Academy of Sciences will begin the publication of Monthly Proceedings. The members of the editorial staff, with the fields of science represented by them, are:

Astronomy: E. B. Frost, Yerkes Observatory, Williams Bay, Wis.

Mathematics: E. H. Moore, University of Chicago, Chicago, Ill.

Physics: Henry Crew, Northwestern University, Evanston, Ill.

Chemistry, Biological and Organic: J. J. Abel, Johns Hopkins University, Baltimore, Md.

Chemistry, Physical and Inorganic: A. A. Noyes, Mass. Inst. Tech., Boston, Mass.

Geology: H. F. Reid, Johns Hopkins University, Baltimore, Md.

Paleontology: Charles Schuchert, Yale University, New Haven, Conn.