INVENTION

Patents of the Week

A resuscitator that allows mouth-to-mouth breathing through face masks and air chambers in giving artificial respiration received a patent—By Elizabeth Hall

➤ A MOUTH-TO-MOUTH breathing device that allows almost 100% air exchange between the victim and the person giving air received patent 3,099,985 from the U.S. Patent Office.

The resuscitator, developed by two Arizona inventors, has been tested successfully. In addition to allowing the person giving air the free use of his hands, the breathing device can be operated while the victim is being carried on a stretcher.

Under extreme conditions involving poison gas, the person giving air could breathe from behind his own face mask and plug into the gas mask of the other.

One of its significant features is a slide valve beneath the main air exchange chamber that moves up and down depending on the air pressure. As the person providing the air inhales, the slide valve opens the fresh air chamber and closes his inhalation chamber. When the resuscitator operator exhales, the slide valve closes the fresh air chamber and opens the victim's inhalation passage, forcing him to breathe in the operator's breaths of fresh air, which remain in the chamber.

The resuscitator was designed by Porter C. Wilson and Maxwell R. Palmer, both of

Motion Picture Projection

A motion picture projector system that projects a single picture on a curved screen from three separate films, such as is used in Cinerama, received a patent from the U.S. Patent Office.

Russell H. McCullough of Los Angeles assigned rights to patent 3,101,643 to Cinemiracle Internation Picture, Inc.

The system provides for three motion picture projectors in a single booth at the rear of a theater which has a wide, curved screen in the front. The center projector projects its third of the film directly onto the center, flat part of the screen.

The two side projectors are turned toward the right and left walls of the theater where mirrors reverse the reflected image on the curved parts of the screen. Together the three films produce a composite, panoramic picture.

Breast Covers for Chickens

Apron-like covers that protect the breasts of growing chickens from scratches, cuts and blisters received patent 3,101,696.

The apron covers are attached to the chickens by three resilient bands that hold it in place without making the chicken uncomfortable. Since the breast meat of the chicken is the most expensive part and covers 35% of the bird, the number of scratches and cuts on the breast determines the grade quality of the meat.

Frank J. Lipman of Augusta, Maine, invented the breast cover device, and assigned patent rights to Samuel Lipman Sons Corporation, also of Augusta.

Additional Corn Ear Growth

Two Indiana inventors have developed a formula that induces more ears of corn to grow on each stalk by application of gibberellins to the uppermost female reproductive organs, or ear shoots, on the cornstalk.

Gibberellins are plant-growth regulators, produced by a fungus, and their compounds are called gibberellic acids. The formula should be injected into the ear branch stem with a hypodermic after the emergence of identifiable ear shoots and before pollination.

Robert A. Shurter Jr. and David O. Howe of Terre Haute, Ind., assigned rights to patent 3,102,017 to Commercial Solvents Corporation of New York, N. Y.

Golf Swing Analyzer

An analyzer that tells a golfer what is wrong with his swing earned patent 3,101,-949 for Thomas F. Williams of Dayton, Ohio.

The analyzer identifies a number of swing faults, including slicing, "inside-out" swing, "topping," overreaching, head up or pulling back, arch too flat or too sharp, open or closed face, and arm and wrist roll.

The invention itself consists of a box-like base with projecting, rubber markers, colored differently on each side. As the golfer swings at a practice tee on top of the box, the markers leave a color indication on the head of the golf club.

From the color left on the club, the golfer can determine the angle at which he swung. Patent rights were assigned to William Mullins, also of Dayton.

Other Significant Patents

Other patents include:

An ultrasonic vehicle detector for which Norman A. Bolton of Scottsville, N. Y., was awarded patent 3,102,252. The transmitter and receiver are placed at an intersection and an ultrasonic beam bounces down onto the pavement and back, striking each car as it passes underneath, thus providing an accurate count of all vehicles in a certain area at one time. Rights were assigned to General Signal Corporation of New York.

A trailer-bus vehicle with a fully equipped kitchen, dinette and bedroom area, a rear door, and room for the driver and four or five passengers in the front, for which Cyril B. Rogers of Battle Creek, Mich., was awarded design patent 196,103. The design was assigned to Clark Equipment Company.

• Science News Letter, 84:164 Sept. 14, 1963

Questions-

ASTRONOMY-What prevents detection of faint comets near the sun? p. 163.

BIOLOGY-What is the highest altitude at which microorganisms have been found? p. 166.

ENTOMOLOGY-When are cockroaches scheduled to invade outer space? p. 165.

GENERAL SCIENCE—At what age does scientific interest reach its peak? p. 170.

INVENTION—How do aprons improve the quality of chicken meat? p. 164.

MEDICINE-How does the birth control pill Enovid affect the level of PBI in the blood? p. 168.

SCIENCE NEWS LETTER

VOL. 84 **SEPTEMBER 14, 1963** NO. 11

Edited by WATSON DAVIS

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N.W., Washington, D. C. 20036, NOrth 7-2255. Cable Address: SCIENSERVC.
Subscription rates: 1 yr., \$5.50; 2 yrs., \$10.00; 3 yrs., \$14.50; ten or more copies in one package to one address, 7½ cents per copy per week; single copy, 15 cents, more than six months old, 25 cents. No charge for foreign postage. Change of address: Three weeks notice is required. Please state exactly how magazine is addressed. Include postal zone number.

how magazine is addressed. Include postal zone number.
Copyright © 1963 by Science Service, Inc. Republication of any portion of SCIENCE NEWS LETTER is strictly prohibited. Newspapers, magazines and other publications are invited to avail themselves of the numerous syndicated services issued by Science Service. Science Service also produces and distributes THINGS of science (monthly), produces and publishes books, and conducts the National Science Youth Program. Printed in U.S.A. Second class postage paid at Washington, D. C. Established in mimeograph form March 13, 1922. Title registered as trademark, U.S. and Canadian Patent Offices. Indexed in Reader's Guide to Periodical Literature, Abridged Guide, and the Engineering Index. Member of Audit Bureau of Circulation.



SCIENCE SERVICE

The Institution for the Popularization of Science organized 1921 as a non-profit corporation.

The Institution for the Popularization of Science organized 1921 as a non-profit corporation.

Board of Trustees—Nominated by the American Association for the Advancement of Science: William W. Rubey, University of California at Los Angeles; Wallace R. Brode, Washington, D. C. (Treasurer); Douglas Whitaker, Rockefeller Institute for Medical Research. Nominated by the National Academy of Sciences: Harlow Shapley, Harvard College Observatory; Philip Bard, Johns Hopkins University; Henry Allen Moe, John Simon Guggenheim Memorial Foundation. Nominated by the National Research Council: Leonard Carmichael, Smithsonian Institution (President); John R. Dunning, Columbia University; Benjamin H. Willier, Johns Hopkins University; Nominated by the Journalistic Profession: Gordon B. Fister, Allentown (Pa.) Call-Chronicle; O. W. Riegel, Washington and Lee University; Ralph B. Curry, Flint Journal. Nominated by the Scripps Estate: Edward J. Meeman, Memphis Press-Scimitar; Ludwell Denny, Washington, D. C.; Charles E. Scripps, Cincinnati, Ohio (Vice President and Chairman of Executive Committee).

Staff—Director: Watson Davis. Assistant Director: Dorothy Schriver. Writers: Ann Ewing, Elizabeth Hall, Faye Marley, Elizabeth Mirel, Barbara Tufty, Judith Viorst, Walter Wingo, Ruby Yoshioka. Science Youth Division: Joseph H. Kraus, Leslie V. Watkins. Photography: Fremont Davis. Production: Priscilla Howe, Marcia Nelson. Conferences: Forrest L. Shakenberg. Librarian: Margit Friedrich. Interlingua Division in New York: Alexander Gode, 80 E. 11th St., GRamercy 3-5410. Advertising Manager: Fred A. Moulton, MEtropolitan 8-2562, Washington, D. C.