turned and then sewed to the freshened surface of the nose. Figures 1 *B* and 1 *C* illustrate the full face views of the flap.

The second operation was performed, Jan. 24, 1918, when the redundant flap was separated and replaced on the forehead (Fig. 2 *A*).

Figures 2 *B* and 2 *C* show the result in different positions, with a rather marked "hump" at the tip of the nose.

We decided to perform another operation to remove this "hump," but the general condition of the child was so poor that we decided that a transfusion of blood was necessary. Accordingly this was performed by Dr. Harry Lowenberg through the anterior fontanel, after which there was marked improvement.

The third operation was not performed until June 19, because the general condition of the child did not warrant it. A wedge-shaped piece was then removed. The result is shown in Figures 3 *A* and 3 *B*.

The child is now 4 years old. Figure 3 *C* illustrates the condition of the nose at present. The scar on the forehead is becoming less prominent.

1427 North Broad Street.

A METHOD FOR OBTAINING STABLE SUSPENSIONS OF STREPTOCOCCI FOR AGGLUTINATION *

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The agglutination reaction has not been successfully utilized for the classification of organisms belonging to the *Streptococcus viridans* group. One of the factors which has prevented the application of this reaction—so important in connection with the differentiation of many bacterial species—is the tendency for suspensions to agglutinate spontaneously. The method described overcomes this difficulty, while at the same time giving no interference with serum agglutination.

The organisms are grown in veal infusion broth (1 per cent. bacteriologic peptone, 0.5 per cent. salt) of reaction p_H 7.6, to which is added, before sterilization, 2 per cent of dextrin. Just before inoculating the tubes, 3 drops of ascitic fluid water (1 part of ascitic fluid to 3 parts of distilled water, sterilized for three successive days in the Arnold sterilizer) are added aseptically to each tube. The broth tubes are inoculated from a twenty-four hour blood agar slant. After from eighteen to twenty-four hours' incubation the broth culture is filtered through cotton to remove any large clumps. The filters are easily made by drawing out a culture tube, inserting cotton in the funnel shaped constriction, plugging and sterilizing.

In making the various dilutions of immune serum for the agglutination test, as well as for diluting the suspension in case it is too heavy, 1 per cent. dextrin broth is used in place of the usual physiologic sodium chlorid solution. The mixture of diluted serum and suspension is incubated at 37 C. for one and a half hours before a reading is made. The tubes may be allowed to stand over night in the icebox after incubation, but no difference in final reading has been obtained by this procedure. The bacterial suspension controls are stable for at least twenty-four hours, as are also normal serum controls.

The problem of obtaining a stable suspension was one, first, of preventing the precipitation of a bacterial colloid and, secondly, of so adjusting the quantity of protective colloid used that there would be no interference with the action of the bacterial agglutinins. Dextrin has proved to be a satisfactory substance for this purpose. The presence of too much dextrin causes the formation of a precipitate when the broth is added to blood serum, whether normal or immune. The use of 1 per cent. dextrin broth for dilution avoids this. The junction of the ascitic fluid is to promote bacterial growth.

APPLICATION OF METHOD

The method is applicable to the agglutination reactions of the pneumococci and the hemolytic streptococci as well as of the green producing streptococci.

* From the Department of Hygiene and Bacteriology of the University of Chicago.

New and Nonofficial Remedies

THE FOLLOWING ADDITIONAL ARTICLES HAVE BEEN ACCEPTED AS CONFORMING TO THE RULES OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR ADMISSION TO NEW AND NONOFFICIAL REMEDIES. A COPY OF THE RULES ON WHICH THE COUNCIL BASES ITS ACTION WILL BE SENT ON APPLICATION.

W. A. PUCKNER, SECRETARY.

POLLEN ANTIGENS-LEDERLE.—Liquids obtained by extracting the dried pollen of plants with a liquid consisting of 67 per cent. glycerin and 33 per cent. saturated solution of sodium chloride.

Actions and Uses.—See general article, Pollen Extract Preparations (New and Nonofficial Remedies, 1921, p. 239).

Dosage.—See general article, Pollen Extract Preparations (New and Nonofficial Remedies, 1921, p. 240). Pollen antigens-Lederle are supplied in fifteen pollen unit strengths (one pollen unit represents 0.001 mg. of pollen). They are marketed in vials each containing 0.1 Cc., accompanied by vial containing 0.9 Cc. sterile distilled water with which the pollen antigen is diluted immediately before administraton. These doses are marketed as follows:

Series A: five vials containing for each consecutive dose (Nos. 1 to 5, inclusive) 1.5, 3, 6, 12 and 15 pollen units respectively, and five vials of sterile diluent with which to make the proper dilution of each dose.

Series B: five vials containing for each consecutive dose (Nos. 6 to 10, inclusive) 18, 30, 45, 60 and 90 pollen units respectively, and five vials of sterile diluent with which to make the proper dilution of each dose.

Series C: five vials containing for each consecutive dose (Nos. 11 to 15 inclusive) 150, 225, 300, 450 and 600 pollen units respectively, and five vials of sterile diluent with which to make the proper dilution of each dose.

Complete Series: packages containing the 15 doses, described in Series A, B, and C.

Diagnostic Test: consisting of 0.01 Cc. of a dilution representing 60 pollen units. It may be used cutaneously or intradermally.

Manufactured by the Lederle Antitoxin Laboratories, New York. No U. S. patent or trademark.

Pollen Antigen-Lederle (Ragweed).—A liquid prepared by extracting the proteins from the pollen of the ragweed (*Ambrosia artemisiaefolia*).

Pollen Antigen-Lederle (Timothy).—A liquid prepared by extracting the proteins from the pollen of the timothy (*Phleum pratense*).

Pollen antigens-Lederle are prepared by grinding the dried pollen with glass dust in a mortar for 2.5 hours, using a diluent composed of 67 per cent. glycerin and 33 per cent. saturated sodium chloride solution to moisten the pollen. Then sufficient of the glycerin-sodium chloride solution is added so that the total volume is such that 1 Cc. is equivalent to approximately 14,000 pollen units, the pollen unit having been arbitrarily chosen as the equivalent of 0.001 mg. of pollen. This mixture is shaken for 30 minutes and then kept at 37 C. for 16 hours. It is then shaken for 1 hour, centrifugalized and passed through Bucknes and Berkefeld filters.

Pollen antigens-Lederle are standardized by the complement fixation method to determine the active antigenic power of its protein content. Immune serum is obtained from rabbits which have been immunized with a gradually increasing number of units of pollen. Using the same technic for complement fixation as that adopted by the Research Laboratories for the Department of Health, New York, one pollen unit is found to be equivalent approximately to 1-20 of a unit of antigen, taking a unit of antigen as the smallest amount that gives complete fixation in the hemolytic series.

PITUGLANDOL-ROCHE.—An aqueous solution containing the active constituents of the posterior lobe of the pituitary gland of cattle, free from preservatives. It is physiologically standardized on the isolated uterus of the virgin guinea-pig so that 1 Cc. corresponds in activity to 0.003 Gm. betaiminazolylethylamine hydrochloride.

Actions and Uses.—See general article, Pituitary Gland (New and Nonofficial Remedies, 1921, p. 219).

Dosage.—0.5 to 1 Cc. by deep intramuscular, subcutaneous or intravenous injection.

Manufactured by F. Hoffmann-LaRoche & Co., Ltd., Basle, Switzerland (The Hoffmann-LaRoche Chemical Works, New York. distributor). No U. S. patent or trademark.

Ampuls Pituglandol-Roche: each contains 1.1 Cc.