tube with which I have had experience was probably the result of a demonstration of this process. I hope, therefore, that other operators will not be led by Dr. Golden's letter to try the method except in case of a real emergency.

THOMAS B. COOLEY, Detroit.

A Micro-Organism which Apparently Has a Specific Relationship to Rocky Mountain Spotted Fever

To the Editor:—Through an oversight in calculating, the serum dilutions, to which I referred in my article with the above title in THE JOURNAL, January 30, page 379, were wrongly stated. The dilutions actually employed were twice those stated in the article, and should have been given as follows: 1 in 2, 1 in 20, 1 in 40, 1 in 80, 1 in 160, 1 in 249, 1 in 320 and 1 in 400. Therefore the complete agglutinating power of the immune serum was manifested in the dilution of 1 in 320 instead of 1 in 160.

H. T. RICKETTS, Chicago.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed.

CONTAGION AND INFECTION

To the Editor:—What is the difference in meaning between "infectious" and "contagious"? STUDENT.

ANSWER.—The confusion which exists regarding the significance of the words "infectious" and "contagious" is due in large part to the fact that they have grown into a usage varying somewhat from that which adhered to them originally. For the same reason the definitions found in the dictionaries are unsatisfactory; in fact, these are behind the times regarding these words. Good usage is the lexicographer's authority, and in case a certain usage has come to be universal among leading men, it may be considered as good usage.

The confusion may be cleared by holding fast to this statement: the term infectious is applied to all those diseases which are caused by parasites, particularly the microparasites, i. e., the bacteria, certain fungi and the protozoa. "Infection" is also used synonymously with "infectious disease." The term is not so commonly applied to conditions in which the body is invaded by the larger "macroparasites," as the intestinal worms, but it would not be improper to use it in such cases. When the surface of the body is the point of attack for such parasites as the pediculi, "infestation" is commonly used, but the distinction between "infection" and "infestation" is artificial to a certain extent. The term infectious, therefore, refers to the etiologic character of the disease.

To place the word "contagious" in its proper relationship to "infectious," we may say that infectious diseases may be divided into two classes: those which are contagious and those which are not. A contagious disease is one which is transmitted with greater or less ease from the patient to another person when the two come into direct or indirect contact. The word contagious therefore refers to a method of transmission which prevails among some infectious diseases. In earlier times the word "contagion" was used vaguely in referring to the unknown cause of a contagious disease, and the disease itself was also called a contagion; for example, a person was said to be suffering from a contagion. This use of the word does not prevail in modern literature. "Contagion" as now used refers to the act of transmission of an infectious disease by the medium of contact. It seems uncalled for, in relation to the question asked, to cite illustrations showing that there are all grades of contagiousness, or to enumerate the various vehicles of transmission which are utilized by the contagious infections.

METHOD OF DISGUISING TASTE OF ARTIFICIAL CARLSBAD SALTS

To the Editor:—In adding a teaspoonful of artificial Carlsbad salts to a glassful of water as a laxative, what could be added to this mixture to make it palatable, or reasonably so?

GEORGE H. WERK, Cincinnati.

ANSWER.—The addition of a little sugar and lemon juice often effectually hides the disagreeable taste of the salts contained in artificial Carlsbad salts. Many patients, however, take such salts largely diluted with water in preference to any other method of administration. This applies to salty substances in general. While disagreeable in concentrated solution, they often become comparatively pleasant when sufficiently diluted.

The Public Service

Army Changes

Memorandum of changes of stations and duties of medical officers, U. S. Army, week ending Jan. 30, 1909:

Greenleaf, H. S., major, granted leave of absence for one month.
Shook, J. R., capt., granted leave of absence for one month.
Koerper, C. E., capt., granted leave of absence for 14 days.
Clarke, J. T., major, granted an extension of 15 days to his leave of absence.
Bevans, J. L., capt., granted leave of absence for two months.
Church, J. R., major, granted leave of absence for one month.
Winter, F. A., major, ordered to accompany troops to San Francisco.
Kendall, W. P., major, ordered to accompany troops from Fort Ethan Allen, Vt., to Fort Leavenworth, Kan., and return to station.
Davis, W. R., capt., granted leave of absence for 15 days.
Coffey, A. M., M. R. C., ordered from Fort Sam Houston, Texas, to Fort Sill, Okla., for temporary duty.
Jordan, E. H., M. R. C., granted leave of absence for two months, with permision to return to the United States via Europe.
Wertenbaker, C. I., M. R. C., granted leave of absence for 10 days.
Stallman, G. E., dent.-surg., left Fort Sam Houston, Texas, for duty at Fort McIntosh, Texas.
Voorhies, H. G., dent.-surg., ordered to a month's duty at each of these posts: Fort Lincoln, N. D.; Fort Yellowstone, Wyo.; Fort William Henry Harrison, Mont.; Fort Missoula, Mont., and Fort Assiniboine, Mont.

Navy Changes

Changes in the Medical Corps, U. S. Navy, for the week ending Jan. 30, 1909.

Hart, G. G., acting asst.-surgeon, appointment dated Jan. 10, 1909, revoked.
Stokes, C. F., surgeon, ordered to report to the Surgeon General of the Navy for special temporary duty in connection with repair of hospital ships.
Huffman, O. V., asst.-surgeon, discharged from treatment at the Naval Medical School Hospital, Washington, D. C., granted sick leave for three months, and resignation accepted to take effect April 26, 1909.
May, H. A., P. A. surgeon, detached from duty with flotilla of light-house vessels, San Francisco, and ordered to the Pacific Fleet, sailing from San Francisco, Feb. 5.
Old, E. H. H., detached from the Naval Hospital, Norfolk, Va., and ordered to temporary duty at the Navy Yard, Washington, D. C., and to additional duty on board the *Mayflower*.
Thomas, G. E., acting asst.-surgeon, detached from the Naval Hospital, Boston, and ordered to the Naval Hospital, Norfolk, Va.

Public Health and Marine-Hospital Service

List of changes of stations and duties of commissioned and other officers of the Public Health and Marine-Hospital Service for the seven days ended Jan. 27, 1909:

Young, G. B., surgeon, directed to attend the meeting of the Lake Michigan Water Commission to be held at Indiana Harbor, Ind., Jan. 23, 1909.
Cumming, Hugh S., P. A. surgeon, directed to proceed to Nagasaki, Japan, upon special temporary duty.
Fricks, L. D., P. A. surgeon, leave of absence granted Jan. 8, 1909, for 7 days from Jan. 9, 1909, amended to read 5 days from Jan. 9, 1909.
Sweet, Ernest A., P. A. surgeon, granted 7 days' leave of absence from Dec. 25, 1908, under paragraph 189, Service Regulations.
Stiles, C. W., chief division of zoology, hygienic laboratory, granted three days' extension of annual leave on account of sickness from Jan. 12, 1909.
Blount, B. B., Acting-asst. surgeon, granted 30 days' leave of absence from Feb. 1, 1909.
Bussey, Joseph C., Acting-asst. surgeon, granted 7 days' leave of absence, under paragraph 191, Service Regulations.
Hamilton, H. J., Acting-asst. surgeon, granted 30 days' leave of absence from Jan. 27, 1909.
Moncure, J. A., Acting-asst. surgeon, granted 30 days' leave of absence from Feb. 18, 1909.

Health Reports

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended Jan. 29, 1909:

SMALLPOX—UNITED STATES

Alabama: Tuscaloosa, Dec. 1-31, 20 cases; Mobile, Jan. 21, 1 case.
Arkansas: Texarkana, Nov. 22-Jan. 11, 10 cases.
California: Los Angeles, Jan. 2-9, 2 cases; San Francisco, 2 cases.
Illinois: Browning, Oct. 25-Jan. 20, 75 cases; Centralia, July 1-Jan. 20, 50 cases; Chicago, Jan. 2-9, 1 case; Danville, Jan. 10-17, 1 case; Ladd, Nov. 1-30, 4 cases; Taylorville, Jan. 18, 40 cases.
Indiana: Evansville, Jan. 9-16, 2 cases; Lafayette, Jan. 11-18, 12 cases.
Kansas: Atchison, Jan. 9-16, 1 case; Kansas City, Jan. 2-16, 2 cases; Topeka, Dec. 3-10, 10 cases.
Kentucky: Covington, Jan. 9-16, 2 cases; Lawrenceburg, Oct. 1-18, 200 cases, 1 death; Lexington, Jan. 2-16, 9 cases.
Louisiana: Arcadia Parish, Dec. 20-Jan. 11, 30 cases; New Orleans, Jan. 2-16, 4 cases.
Maine: Van Buren, Jan. 9-16, 7 cases.
Michigan: Detroit, Jan. 9-16, 1 case.
Missouri: St. Louis, Jan. 9-16, 1 case.
Montana: Butte, Dec. 15-Jan. 12, 12 cases.
Nebraska: South Omaha, Jan. 9-16, 1 case.
North Carolina: Wilmington, Jan. 22, 1 case, imported.
Tennessee: Green County, to Jan. 22, 103 cases; Knoxville, Jan. 9-16, 1 case; Memphis, Jan. 18, 1 case, imported; Nashville, Jan. 9-16, 4 cases.