

The first number of this Bulletin contains daily rainfall observations for January, 1921. The present issue contains reports from 366 stations, including the West Indies, also Venezuela and Colombia on the South American Coast. Later it is planned to include countries of Central America. Monthly reports will be issued as rapidly as possible.

PHYSIOLOGICAL METEOROLOGY

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Weather and Diarrheal Diseases of Infants. Dr. Hoffman of the Prudential Life Insurance Company has recently published an interesting study based on daily examinations of children under one year of age in two towns in Pennsylvania for a period of three and six months. He found that the amount of sickness from diarrheal diseases increases in almost direct proportion to the temperature. No matter whether the maximum or minimum temperature is considered, the bad effects of high temperature are equally obvious. Hoffman suggests that he has been forced to conclude that it would seem entirely possible to carry such studies to the point where it will be possible to forecast the weather conditions which threaten an epidemic outbreak of infant diarrhea. By this means every mother could be promptly informed through the newspapers of impending dangers of the weather likely to prove disastrous to children's life and health. Such warnings could be accompanied by suggestions from the Board of Health as to the dangers of artificial feeding and as to changes in methods of feeding most likely to prevent disease during abnormal differences of temperature.

New York Medical Journal, Feb. 1, 1922, 115, No. 3. "Influence of Weather Conditions on Morbidity and Mortality in Early Infancy." F. L. Hoffman, Newark, N. J. Abstract in *Journal of the American Medical Association*, Feb. 25, 1922, 78, No. 8.

With satisfactory ventilation in English tin plate mills, there is three per cent less labor output in summer than in winter.

A new book which is of interest to meteorologists is the following: "Ventilation, Weather and the Common Cold," by Dr. George T. Palmer, Epidemiologist to the Detroit Department of Health; 40 pages and charts; price 50 cents; published by The C. V. Mosby Company, 801 Metropolitan Bldg., St. Louis, Mo. This is a study of the prevalence of respiratory affections among school children and their association with school ventilation and the seasonal changes of the weather. The study was conducted jointly by the Bureau of Child Hygiene of the New York City Department of Health and the New York State Committee on Ventilation.—A. H. Palmer.

The chief significance of the book is the evidence which it presents of the great importance of fresh air and low temperature in preventing respiratory diseases.

Hospital statistics studied by Dr. Ellsworth Huntington show that low humidity in the wards is followed by a relatively high death rate among persons who have been subjected to operations. The increase in the death rate in dry weather is not confined to hospital wards alone, but is evident from a study of death in general. With a mean temperature of 40°, a lowering of the humidity 10 per cent is correlated with an increase of the death rate by 4 per cent in the case of non-contagious diseases, and

9.5 per cent in the case of contagious diseases. (Anesthesia Suppl. of Am. Jour. of Surgery, Apr. and Oct., 1921.)—*J. W. R.*

During the months when school buildings are artificially heated, the humidity of the class rooms rarely exceeds 35 per cent; usually it is between 25 per cent and 30 per cent. Experience has shown that the optimum for comfort indoors is between 60 per cent and 75 per cent [provided that the air temperature kept down to about 60° F.]. That is, the air is most comfortable when it contains about three-quarters of the moisture that may be present. When the moisture in the air falls below 45 per cent at ordinary room temperatures, bodily suffering in one form or another appears to result. In school rooms the humidity increases noticeably from nine o'clock until noon, the increase being derived from the bodies of the pupils—skin and lungs. At present one of the great needs of physiological meteorology is more exact investigations to determine whether there is a definite optimum of atmospheric vapor depending on the absolute amount of vapor in a given space rather than upon the relative humidity. It is also highly important to determine whether the effect of moisture depends upon the water vapor itself or merely upon its relation to the rate of cooling of the skin and thus upon the sensible temperature.—*J. W. R.*

Mr. John R. Weeks calls attention to an error on page 34 of the February BULLETIN. Dr. Longstreet supplied to Mr. Weeks the data from which the latter found that measles seems to fluctuate in accordance with the weather. Dr. Longstreet's connection with the State and City as health officer would not have permitted him to make the correlation himself.

Mr. Weeks goes on to say: "I believe that eventually there will be built up sciences of 'bacterial ecology' and 'human ecology,' an important feature of which will be weather relationships, but that these sciences will need to be built up and pieced together just as the sciences of geology and plant ecology have so developed. In these new sciences of bacterial ecology and human ecology we are in the beginning and controversial stages and rapid advances may be expected as the years pass."

OUR SALUBRIOUS CLIMATE.

New England weather has a standing as a topic of conversation altogether different from that of "the weather" in general. That is supposed to be the acme of triteness, a last resource, suitable to talk about only when genuine ideas fail. New England weather has been celebrated by poets and humorists. In its bearing on the question of climate and health, it is of permanent scientific interest. We need not be ashamed to talk about it because it is worth talking about.

Probably most of us feel that the most characteristic thing about our weather is not its habit of reaching extremes of temperature in the course of a year but its capacity for approaching opposite extremes within the space of a few hours.

The discomfort of these changes, the disturbing effect on nervous people and the strain placed on health in general through inducing susceptibility to colds are not to be disputed. But at all this cost we do escape monotony, and that is something. A New Englander, transplanted into southern California, frequently complains of the monotony of the weather. Yes, the

vaunted perfection of the California climate is wearisome. This was in the mind of the *Providence Journal's* editorial writer, who recently elevated the variety of New England weather into a philosophic principle:—

One of the elements in charm is changefulness. Where there is no surprise there is no fascination. Southern California, with its dependable good weather, palls after a time. Arizona's cloudless months produce mental weariness.

These may appear to be but personal impressions. But experts in climatology come to substantially the same conclusion. Prof. Robert DeC. Ward of Harvard, writing in the *Scientific Monthly* on "Climate and Health, with Special Reference to the United States," says:—

There is a pretty general agreement, among physicians, physiologists and climatologists, that, excepting those who are distinctly ill, the best climate for most people and most of the time is one which has frequent moderate weather changes; fairly marked annual and diurnal variations in temperature; a reasonable amount of cold during at least part of the year; a refreshing variety in the amount of cloudiness, and sufficient rainfall to provide enough moisture for the growth of grass and crops.

Applying this yardstick of perfection to our New England climate, we shall probably decide that where we most seriously fall short is in the character of our weather changes. "Frequent moderate changes" we do not enjoy. Our changes are frequent; but too often they are not moderate. Therefore they fail to have the most helpful effect on mental, physical and nervous energy.—*Springfield Republican*, May 31, 1921.

LITTLE INTEREST IN CIVIL SERVICE JOBS.

Citizens of this city are apparently not keen on federal civil service positions or else are not inclined to cut through red tape sometimes required in the taking of various examinations, local officials believe. No one appeared yesterday to take the examination for assistant observer in the weather bureau service, in connection with which it was said at the federal building that Washington has requested efforts be made to induce local persons who might be interested in positions under the government. Comparatively low salaries, however, are believed contributory in good measure to lack of interest shown in federal service.—*Springfield (Mass.) Republican*, Feb. 16, 1922.

In another portion of the same paper was an item headed: "Jobless thankful for the snowstorm." If when there is extensive unemployment, a Weather Bureau examination cannot even attract one candidate in a city the size of Springfield, Mass., what is likely to happen to the Weather Bureau within a few years?

In March, 1920, the Congressional Joint Reclassification Commission made its excellent report, recommending essential improvements in working conditions and salaries to off-set the blighting and expensive exodus from the government service and to attract first-grade rather than second-grade people into it.

In March, 1922, conditions of employment and salaries in the federal bureaus are practically as they were in 1920. The Lehlbach Reclassification Bill providing for the much needed rejuvenation of the federal service has passed the House by a majority of 245 to 65 but has for the past three months been buried in the Senate Committee of the Civil Service.—*C. F. B.*