His flat is very nice, the yearly rent for it being 6000 kronen. It appears that he has no other revenues than his pension, amounting to 2000 kronen (less than $7.00) per month, and his wife is complaining of being compelled to reduce her expenses to manage the household. Recently Professor Hann's health has turned so very bad that even walking is very hard for him. He used to be accustomed to very good food, but in view of the present conditions he is unable to spend so much money for it. The housemaid states that only a short time ago Professor Hann has been allotted food from the Vienna University which is supposed to come from the first donation for the Intellectual Classes."

INFORMATION EXCHANGE SERVICE.

At a recent meeting of the Council of the Society the following action was taken on a suggestion by H. W. Richardson of the Duluth office of the Weather Bureau:

(1) That the Secretary invite all those who desire information on any meteorological subject, or help in compiling data for or otherwise solving problems involving meteorology, to write to him; (2) that such questions or requests for help be published each month in the BULLETIN; and (3) that the ultimate disposal of the inquiries be published in the same or a later BULLETIN. Readers of the BULLETIN on seeing such requests for information or help are invited to communicate directly with the inquirer or write to the Secretary, who will either publish the replies in the BULLETIN or forward them to the inquiring parties. Address: "Sec'y. Am. Met'l Soc., Weather Bureau, Washington, D. C."

MONTHLY WEATHER REVIEW, AUGUST, 1920.

(Concluded from page 136 of November BULLETIN.)

The principle of the conservation of angular momentum as applied to atmospheric motions. H. W. CLOUGH. Fig. Pp. 463–465.

["It is well-known....that the enormous velocities....called for by the principle of equal areas do not exist in the atmosphere, and since this principle is of rigorous application to all air motions, the problem is to account for the moderate velocities actually observed." Many authors are quoted, explaining this lack of enormous velocities as a result of the retarding effect of friction.

"Moving air [*i. e.*, air moving merely under the influence of an initial impulse] does not acquire the excessive velocities implied in the extracts given above, because it does not move over the required range of latitude. The increase in easterly velocity is checked when the limiting latitude is reached, hence friction is obviously not needed to reduce the excessive velocities."

With an east-west pressure gradient, however, "it is obvious that allowing for an increase in gradient with increasing latitude the condition of steady motion is realized and the air particles move over a wide range of latitude with uniform velocity. The principle of the preservation of areas is not thereby invalidated nor is it necessary to assume that retarding or damping influences operate to reduce the increased velocities called for by the change of latitude. The increase of relative easterly velocity due to increase of latitude is exactly neutralized by the increase of westerly velocity due to the gradient."]

The section of the *Review* on "Notes, abstracts, and reviews," (pp. 463–470) contains the following: Meteorological influences of the sun and the Atlantic, Services of a vessel-reporting station of the Weather Bureau, First scientific conference, Pan-Pacific Union, Atlas of typhoon tracks (with Jan. and Feb. maps), Charles W. Hendel, Color of the night sky, Hot winds and "northers" at Tampico, Mexico, Variability of temperature and departure from the monthly mean, The laws of approach to the geostrophic wind, Tectonic earthquakes and variations of latitude.

The rest of the *Review*, pp. 470–493, 9 charts, contains the usual monthly bibliography, summary of solar and sky radiation measurements during August, 1920, solar constant measurements at Calama, Chile, the weather of the month, and seismological reports.

MONTHLY WEATHER REVIEW, SEPTEMBER, 1920.

(Issued December 8, 1920.)

The current issue of the *Review* is featured by a group of papers on physiological aspects of weather and climate. Separates of this group will be published in time for distribution before the SOCIETY holds its symposium on this subject at the Chicago meeting. Copies may be had on application to the Secretary, and a supply will be available for distribution at Chicago. Aeronautical meteorology also is discussed in several papers and notes. Much space is devoted in both the section on contributions and that on weather of the month to the tropical hurricanes of September, 1920.

***Some further uses of the climograph.** B. M. Varney. Pp. 495–497, 5 figs.

[The climograph as developed by Dr. Griffith Taylor, but in a modified form in which data for air temperature and relative humidity are used in place of those for wet-bulb temperature and relative humidity, is believed to be useful in many ways beyond the simple showing of monthly averages of climatic conditions as heretofore. In demonstration of this, four climographs (in addition to one using monthly averages) are given, three of them in a comparison of certain details regarding the climates of San Francisco and Fresno, Calif., the fourth to illustrate the climographic representation of a hot wave. Suggestions are made as to the usefulness of the climograph in depicting non-periodic weather changes in general. The emphasis is on its value as a supplement to the conventional curve, as a help to the visualizing as far as possible of the *effects* of climate and weather on organic life.—*Author's synopsis.*]

The katathermometer: an instrument to measure bodily comfort. R. A. Jacob. Pp. 497–498, photo of katathermometer.

[Discusses the measurement of the effect of the atmospheric conditions of the body. Gives a brief chronological history of experiments made to determine such meteorological conditions; also a description of the instruments, especially the katathermometer, designed to secure such measurements.]

The science of ventilation and open-air treatment. Leonard Hill. Pp. 498–499.

[Abstract of 2 volumes recently issued by the British Medical Research Council on the relations between atmospheric conditions, health and comfort.]

Climate and its relation to acute respiratory conditions. Estes Nichols. Pp. 499–501.

[A study of the weather conditions at a New England station was made for the period September 2 to November 9, 1918, when the Spanish influenza was epidemic. The data thus obtained were compared with the average for the corresponding months for the last ten years in an effort to learn, if possible, to what extent meteorological conditions furthered the great epidemic. While admitting that climate, so far as seasons go, does play a great part in the incidence of acute respiratory diseases, especially pneumonia, the writer is convinced that housing conditions—particularly overcrowding and lack of sufficient heat, due to war-time restrictions on fuel—were of greater moment than climatic factors.]

The contral of pneumonia and influenza by the weather. Ellsworth Huntington. (Review and discussion by J. B. Kincer and rebuttal by author.) Pp. 501–507.

[In the January, 1920, issue of *Ecology* Prof. Ellsworth Huntington interestingly discusses the relation of temperature and humidity to the death rate from pneumonia in New York City from April, 1917, to March, 1918, as dis-

* Starred articles indicate publication of separates.