ciation reports that some statistics have recently been published showing that of the 345 medical and other scientific journals published in France before the war, about 270 have suspended publication. Others have changed from weekly to a monthly issue and others issue only four numbers a year. The total quantity of the paper used by them now does not amount to more than 35 tons a month. The important discoveries and experiences of the war and the lessons from them have been spread broadcast by the medical journals, so that surgeons and physicians have been able to keep abreast of progress and thousands of lives have been saved. The organization medical press in France is pleading with the authorities for special concessions during the period of the prevailing scarcity of paper, but no heed has been paid to the appeal as yet.

UNIVERSITY AND EDUCATIONAL NEWS

Yale University has received from the Kingsley Trust Association (Scroll and Key Society of Yale College) $30,000 to commemorate the seventy-fifth anniversary last year of the founding of the society. This is to be added to the endowment of the Kingsley Trust Association Publication Fund, established by the members of the Society in 1914, and will increase the total of this to $50,000; making it the largest publication fund held by the university. The income of the original $20,000 is used for publications through the Yale University Press in the field of history.

The Massachusetts State College is requesting a state appropriation of $100,000 for the development of women's work at the institution, $70,000 being for a women's building and $30,000 for maintenance until November 30, 1920.

In response to a request from the gun production of the Ordnance Department, United States army, the school of applied science of New York University has put its testing laboratory at the service of the government.

Thomas P. Cooper, director of station and extension work in North Dakota, has been appointed dean of the Kentucky College of Agriculture and director of the Experiment Station.

Dr. H. G. Knight, dean of the college of agriculture and director of the experiment station of the University of Wyoming, has accepted the corresponding position at the Oklahoma College and Station, effective February 1, and has been succeeded at Wyoming by A. D. Faville.

Professor Harvey Evert Huber, professor of biology and geology at Ohio Northern University since 1913, has resigned to accept the professorship of biology at Bluffton College. He will assume his new position in September.

L. T. Anderegg, in charge of the department of chemistry in the high school at Decatur, Ill., has accepted the position at the Kansas State Agricultural College in chemical analysis which was left vacant by the resignation of R. C. Wiley.

Dr. Gerald L. Wendt has been appointed assistant professor of chemistry and curator of the Kent chemical laboratory at the University of Chicago. He has charge of the instruction in quantitative analysis and in radioactivity.

Lina Stern, privatdozent in the University of Geneva, has been appointed professor extraordinary of physiological chemistry.

DISCUSSION AND CORRESPONDENCE

SPECTROSCOPIC INVESTIGATION

To the Editor of Science: An exceptional opportunity for spectroscopic investigation now exists in this country and it seems desirable that it should have the wide publicity of the columns of Science. The Mining Experiment Station at Golden, Colorado, under the Federal Bureau of Mines, specializes in the radium products and the rare gases which are associated with their production. It is likely that larger quantities of the radium emanation, for instance, are available there for research than anywhere else in the world at the present time.

A visit to this interesting laboratory last autumn disclosed the presence there of a large

Hilger spectrograph of the autocolimating type, with very large prisms, and apparently capable of yielding excellent spectra on a large scale. The members of the regular staff of chemists at the Station, under the direction of Dr. R. B. Moore, are too much occupied with their regular duties to undertake special spectroscopic researches. Therefore this fine instrument has not been utilized as it might be. An unusual chance is thus presented for the establishment of a fellowship for spectroscopic research, under the joint auspices of the station and of some university, physical laboratory or scientific fund.

A second consideration of immediate importance lies in the fact that Golden is situated near the central line of the total eclipse of June 8. American science could be accused of grievous neglect, if this spectrograph, already in the eclipse track, should not be used on that occasion by an expert spectroscopist. To many such I have written personally during recent months, urging that the opportunity be improved; but as a result of war duties or the shortage of assistants in the laboratories, thus far no one has been found who could undertake the work.

It would be necessary for the person to go to Golden early enough in May, so that the spectrograph could be put into excellent adjustment and then to mount it where a clear view of the northwestern sky could be had. The necessary heliostat could doubtless be borrowed from some laboratory. The altitude of Golden is 5,700 feet, and if the foliage around the station building was too heavy in June, it would not be at all difficult to transport the spectrograph up to an elevation of about 7,500 feet on Lookout Mountain, where Colonel Cody was buried.

The ideal arrangement will of course be for this same person who gets familiar with this spectrograph to continue in research with it after the eclipse. If a suitable person is found, an effort can be made to raise the necessary funds for a fellowship or other basis which may be arranged for the work.

Time might perhaps be saved for those who may wish to consider the observation of the eclipse with this instrument, if they will write to me directly.

I am writing this at the request of Dr. Charles L. Parsons, of the Bureau of Mines, and Dr. Moore.

EDWIN B. FROST

YERKES OBSERVATORY,
WILLIAMS BAY, WISCONSIN,
April 13, 1918

THE DESICCATION OF THE EARTH

TO THE EDITOR OF SCIENCE: In Notes on Meteorology and Climatology in the issue of SCIENCE for October 21, 1910, attention is invited to an article in *Umschau* by Dr. Karl Stoeckel which helps to explain the slow desiccation of the earth.

> It is believed that the ultra-violet rays of sunlight which fall upon the water vapor suspended in the lower strata of the earth's atmosphere decompose a small part of it to produce hydrogen, which rises to great heights. . . .

I do not think it has been pointed out before that the earth's surface must be continuously losing hydrogen through the decomposition of water vapor by every flash of lightning. Pickering and others have recognized the hydrogen lines in the spectrum of lightning, and the larger works on meteorology mention the fact that lightning flashes decompose some water. See Hann's "Lehrbuch der Meteorologie," 2d edition, page 480:

> But the electric flash also decomposes some water and causes the incandescence of the hydrogen.

The hydrogen formed by every lightning flash rises rapidly to the upper atmosphere and is lost to the earth.

Considering the frequency of thunderstorms during the summer season in both hemispheres and at all times in the equatorial regions the loss of hydrogen in this way can not be considered as insignificant. As long as conditions upon the earth remain such as to render thunderstorms possible, the slow desiccation of the earth must continue.

C. F. VON HERRMANN

AREAS OF AUDIBILITY

TO THE EDITOR OF SCIENCE: Students of the constitution of the atmosphere have published