Committees were appointed as follows: Messrs. Dunwoody, Mell, and Upton, to prepare forms for records to be used by state services and volunteer observers; Messrs. Davis, Thomas, Mell, Dunwoody, and Woodruff, to report on a system of weather-signals for local display throughout the country; Messrs. Mendenhall, Fuertes, Dunwoody, Upton, and Payne, to consider plans for a permanent organization of the conference.

The attendance at the conference represented so many parts of the country, that its recommendations will doubtless have due weight in securing the desirable end of uniform methods of work in the state services now in operation, and in those yet to be formed. Among the members of the signal service, there were present Professor Mendenhall, Lieutenants Dunwoody, Woodruff, Finley, Walshe, and Day, Professors Ferrel, Abbe, Hazen, Russell, and Marvin, and Mr. McAdie. The state services were represented by Professor Thomas of Ohio, Professor Payne of Minnesota, Professor Young of Nevada, Professor Mell of Alabama, Messrs. Henderson and Redding of the bureau of agriculture, Georgia, Professors Upton and Davis and Messrs. Rotch and Ellsworth of New England, and Professor Huston of Indiana. Professor Fuertes of Cornell university, and Mr. Gillingham of Virginia, volunteer observers of the signal service, were also present.

The conference adjourned, to meet again at the call of the committee on permanent organization.

At the meeting of the committee on permanent organization, held after the adjournment of the conference, it was decided to organize under the name of the 'Association of local weather services,' and to hold meetings annually in February. The object of the association is to encourage and promote the mutual co-operation of the local weather services and the general weather service of the United States. Its membership is limited to the officers of local services or duly appointed delegates, together with representatives from the chief offices.

METHOD OF STATING RESULTS OF WATER-ANALYSES.

THE Chemical society of Washington, at the meeting of Nov. 12, 1885, appointed a committee to consider the present state of water-analyses, and to present a method of stating analyses adapted for general use, in order that those hereafter published may be readily compared with each other and with future work. This committee reported Feb. 11, 1886, and was authorized to prepare an abstract for publication, in order to call the attention of chemists to the subject.

The society earnestly recommends the adoption of the scheme which is herewith briefly presented. The full text of the report will be published in the next bulletin of the society.

Water-analyses are usually made to answer one of three questions: viz., 1°, Is the water useful medicinally? 2°, Is it injurious to health? and, 3°, Is it suitable for manufacturing purposes? Many books relating to water were published during the eighteenth century, but accurate chemical analysis was not attempted until about 1820. As the earlier analyses were isolated, rare, and made for special purposes, the form of the statement was of little importance, if it was only intelligible. At the present time, however, water-analyses are very numerous. An examination of about a thousand shows some forty-two methods of stating quantitative results, there being sometimes three different ratios in the report of one analysis. Such discrepancies render comparisons difficult and laborious.

The various methods of statement may be classified under the following general forms:—

1°. Grains per imperial gallon of 10 pounds, or 70,000 grains.

2°. Grains per U. S. or wine gallon of 58.372+ grains.

3°. Decimally, as parts per 100, 1,000, 100,000, or 1,000,000.

4°. As so many grams or milligrams per litre.

The last two would be identical if all waters had the same density; but as the densities of sea-water, mineral waters, etc., are much above that of pure water, it is plain that the third and fourth modes are not comparable.

The committee therefore unanimously recommends—

1°. That water-analyses be uniformly reported, according to the decimal system, in parts per million, or milligrams per kilogram, with the temperature stated, and that Clark's scale of degrees of hardness, and all other systems, be abandoned.

2°. That all analyses be stated in terms of the radicals found.

3°. That the constituent radicals be arranged in the order of the usual electro-chemical series, the positive radicals first.

4°. That the combination deemed most probable by the chemist should be stated in symbols as well as by name.

The abandonment of Clark's scale has been recommended by Wanklyn and Chapman; and the recommendation made by the committee does not involve the disuse of his method, but merely the bringing of it into accord with the decimal system,—the changing from grains per gallon to milligrams per kilogram.

The last conclusion (No. 4) was deemed desirable from the frequent confusion in the statement of the iron salts and of the carbon oxides.

The committee is unanimously of the opinion that analyses in the form recommended will prove quite as acceptable to boards of health and to the public in general, for whom such analyses are often made, as if presented in the mixed and irregular forms commonly adopted.

The committee also feels sure that the people in general are better able to form a definite idea of the character of a water from a report stated in parts per 100, parts per 1,000,000, etc., than from one expressed as grains per gallon, the latter being a ratio wholly unfamiliar to any but those in the medical or pharmaceutical professions.

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PARIS LETTER.

MANY interesting scientific events have lately attracted attention here. The limits of my present letter will not permit me to speak of them all, and I will therefore confine myself to the most important ones.

The appointment of Mr. Mathias Duval to the professorship of histology in the medical school is one that does not meet entire approval. Mr. Duval is certainly an able man, and one much liked by his students; but it cannot be said that he is well fitted for the task he has assumed. He is much more proficient in anatomy and physiology than in histology. It had been hoped that the faculty of medicine would appoint to this professorship an histologist of known reputation, such as Mr. Malassez. There will be, however, one good result of Mr. Duval's appointment: histology will undoubtedly be taught in a clear and precise manner, which had never been the case under C. Robin's instruction. Mr. Duval is an excellent *vulgarisateur*, and thoroughly understands teaching. His students will certainly learn histology much better than they have hitherto.

With this accession to the faculty, however, the resignation by Mr. Vulpian, of his appointment as *médecin des hôpitaux*, is much regretted by his pupils. His reasons are not very well known. It has been stated that he did so in order to devote more attention to his patients; but the truth is, he has not much practice, and the greater part of his time is given to laboratory work. He has recently been asked to accept the appointment as *secretaire perpétuel* of the Academy of sciences, in the event of Mr. Jamin's death (which occurred yesterday), and it may be that he has thus sought opportunity to devote himself to this very absorbing task by resigning his other arduous occupations.

Mr. Paul Bert took his departure from Paris for Tonquin yesterday evening. Monday last he made a speech at the meeting of the Academy of sciences, bidding adieu in rather pathetic tones. The academy, however, reciprocated neither his real or assumed feelings nor his speech. One cannot but wonder at the general approval of Mr. Bert's mission to Tonquin. He himself is overflowing with happiness. His friends are sure he will do well, and be of use in Tonquin. His enemies — and they are not few — are convinced that he will commit some great blunder, and kill himself politically. They, however, feel a great relief in the fact that they will be rid of him for some time. Everybody is satisfied, even the Academy of sciences, who listened to his last speech with much coldness, as though to impress upon him their lack of interest in politicians. It certainly is a strange and unusual occurrence, in France at least, for a scientific man to become a politician, though it must in justice be said that Mr. Bert is a man of much intelligence; and, should he fail, it will be due rather to his temper than to his lack of ability.

A new French scientific periodical, the *Archives Slaves de biologie*, has recently made its appearance. It is published by Messrs. Richet & Mendelssohn, and will be devoted to the more important scientific works that are published in Russian, Tcheque, and other kindred languages. It will comprise original communications in French, or translations from the Russian, with reviews of the latest works on biological sciences in general. The first number contains more than three hundred pages of large octavo size, including original memoirs by Fritsch, on recently discovered human crania; of Godlewski, on Pocta and Wierzejski on fossil and living sponges; of Danilewsky and Kowalewsky, on Nawalichin and Botkine; and of many others, on various medical and physiological subjects. The remaining pages are filled with reviews and critical notes on the recent biological work in the Russian and kindred languages, from such writers as Mendelssohn, de Varigny, Danysz, Halperine, and others. The project is certainly a very commendable one, to thus gather up in a single journal all the scientific work of a country; and in this particular case the idea is all the better, from the fact that Slavonic *savants* do not all write in the same language, and that their scientific papers are not commonly met with. It is very likely that the periodical will be successful, filling as it does such a useful field. The example of the