

dition for Research in Population Problems. Seven of these delegates are sailing on the *Rotterdam* on June 6.

THE Paris correspondent of Science Service reports that the prize offered by the International Committee of the Red Cross at Geneva for a reagent to detect small amounts of deadly mustard gas in the air has not been awarded. The jury of chemists found none of the submitted reagents satisfactory. According to the terms of the contest, the reagent should have been able to detect with certainty less than one grain of the gas in about one quart of air. The amount of the prize was 10,000 Swiss francs, about \$2,000. The contest closed last December and the jury has since then been considering the reagents submitted with their methods of use. These were known to the jury only by number, the names of the authors being kept separately. All the methods and reagents were examined in detail. Nine were eliminated at the first examination. The remaining four were made the subject of control experiments. The results were not sufficiently conclusive and the jury decided it could not award the prize offered by the committee. The jury consisted of the following: Professor G. Urbain, of the Sorbonne, director of the Chemical Institute of the University of Paris, president; Professor F. Haber, member of the Berlin Academy; Professor F. Swarts, of the University of Ghent, member of the Belgian Royal Academy of Sciences; Sir William Pope, professor at Cambridge University, member of the British Royal Society; Dr. H. Zangger, professor at the University of Zurich, director of the Institute of Legal Medicine of Zurich, and Professor Demolis, technical adviser of the International Committee of the Red Cross.

THE National Geographic Society has presented to the National Museum of Washington the zoological specimens collected by the expedition to the jungle

frontier between Brazil and Venezuela which was headed by Mr. Ernest G. Holt.

THE Division of Horticultural Crops and Diseases, Bureau of Plant Industry, U. S. Department of Agriculture, has established at Seattle, Washington, a laboratory to be devoted to research on the freezing preservation of fruits and vegetables.

THE economic depression has been reflected in the hospitals throughout the country, it appears from the American Medical Association's annual survey of hospital service in the United States, as quoted by Science Service. Although the hospitals did more work during 1930 than the previous year, the increase came entirely in charitable institutions. The association states in the current issue of its journal that "While governmental and other charitable hospitals were burdened with an unusually large number of patients, those that serve pay patients generally suffered a decrease in patronage." During 1930, the number of beds in all types of hospitals increased from 907,133 to 955,869. This increase of 48,736 beds does not include bassinets, of which there were 1,645 more during 1930 than the year before. Hospitals for nervous and mental patients continued to grow. The capacity of these institutions increased from 414,386 to 437,919. Over nine tenths of the beds available in these hospitals were occupied during 1930, while less than two thirds of the available beds in general hospitals were occupied. Outpatient services of hospitals had a tremendous growth, both in the number of such departments and in their use. The greatest number of new departments were organized in western states, but the greatest rate of growth was in the South Atlantic states. The type of service given in hospitals has also shown a steady improvement during recent years, as shown by the increased number of x-ray and physical therapy departments and laboratories.

DISCUSSION

THE PROGRAM OF THE UNIVERSITY ASSOCIATION FOR THE STUDY OF CALENDAR REFORM

THE University Association for the Study of Calendar Reform has been organized by a group who believe that any real alteration of the calendar is some years in the future, as only a small minority in scientific, educational and business circles is showing interest, and these persons do not agree on what alterations are desirable. The members of this association believe, therefore, that persons interested should investigate methods of eliminating as many as pos-

sible of the alleged defects of the present calendar without waiting for the proposed overhauling. In other words they suggest that we clear the ground for future work by finding out which of the troubles charged are real calendar defects, and which can be remedied by changing present methods.

According to calendar reform organizations (SCIENCE, January 30, 1931, page 118), "the three undisputed defects of the present calendar are: Unequal months; changing of week-day names for monthly dates; drifting dates for Easter and other church festivals." The months vary in length from twenty-eight to thirty-one days. The number of

working days is even more variable because of holidays and the five-Sunday and four-Sunday months, and in addition a correction for seasonal differences must be applied in business studies. The "changing of week-day names for monthly dates" means that business in months of one year can not be compared with that of corresponding months in the year following without corrections; and that a schedule of events made out for one year in month and day of month must be altered to fit the weeks of the following years. The present custom is to schedule recurring events as, for example, the Saturday following the fourth Monday of April; but in spite of much time spent in devising such rules, there are many conflicts, mistakes and worries. The other "undisputed defect" is a religious custom, not a calendar defect. The dates for these church festivals drift because they are not set by our present calendar. Easter commemorates the Resurrection of Jesus, and the Christian Church has seen fit to use, not only the date as given in the Scriptural narrative, but also the lunar months in use in Palestine at that time. Whether or not this rule is to be changed is a question for the churches to decide, and it should be discussed in religious, rather than scientific periodicals. Some wage earners who are paid weekly have difficulty meeting heavy monthly bills, and some persons on a monthly salary have trouble with weekly bills. Other difficulties have been charged against the calendar, but most are associated with the four we have listed.

Let us now consider, as we have suggested, the possibilities of improvement without waiting for an international overhauling of the world's calendar. First: For annually recurring events the period of recurrence is a year, and such events should, therefore, be assigned a certain week of the year, instead of a certain week of the month. The fifty-one (sometimes fifty-two) complete weeks of the year are indicated on calendars and almanacs in general use, and numbers for these weeks can easily be written on the margin of the office calendar. If the schedule for the following year is made out, assigning to each annually recurring event the same week and day of week as for this year, these events fall in exactly the same order, and the relation of each to all others in the annual schedule is unchanged. In this way a few interested business men can make out a permanent schedule for nearly all important events in their community without the average citizen knowing anything about it. Later, if a sufficient number become interested, calendars with the numbers for the weeks printed to the left of Sunday should be put in circulation. The general public probably would, at first, pay no more attention to these numbers than to those indicating the day of the year now printed

on so many calendars; but the more intelligent would soon begin using them for such purposes as figuring the number of weeks for which wages must be paid on a certain job, or the number of weeks to the close of the school year. If the calendars carry the suggestion that the number for the week be used in scheduling recurring events, an increasing number of schedules would be so made out, and the date confusion to which calendar reformers refer would be practically eliminated. A business firm operating on this plan, which has been called the *numbered weeks* system, would, year after year, be scheduling practically the same events for a given week, and the sales for a group of weeks in one year could be directly compared with the same group in other years, thus avoiding another difficulty. Since many firms are now using an auxiliary calendar of groups of weeks to avoid the unequal months, the suggestion is evidently practical. Easter is a religious question, as we have pointed out, and need not be considered here. The last difficulty—that of wage earners on a weekly basis with heavy monthly expense items, is avoided by billing on each pay day, which is now recognized as a good business principle.

The preceding brief discussion has of necessity touched on only a few points, but we hope it has been sufficient to suggest the program, in line with the experimental method of modern science, which the organizers of the association now favor. The officers are: *Joint Chairmen*, Roy C. Flickinger, University of Iowa, Iowa City; Jakob Kunz, University of Illinois, Urbana, and *Secretary-Treasurer*, C. C. Wylie, University of Iowa, Iowa City. Correspondence is invited.

C. C. WYLIE

UNIVERSITY OF IOWA

PLURAL FRACTIONS AND OTHER FRACTIONS

UNDER the title of "Plural Fractions," Dr. C. E. Waters in the February 20 issue disapproves of the practice, common in scientific journals, of using the plural of the unit named when the number is a fraction; examples are .04 grams and .5 atmospheres. His arguments are good from his point of view, but there is another way of looking at the question.

Dr. Waters says that in reading 4/100 gram one naturally says "four one-hundredths (of a) gram," and he objects to writing .04 grams. But if instead of supplying of *a*, we supply *measured in*, then the plural is required. In a table headed "potential, volts" or "wave length, Angstroms," one naturally supplies *measured in* where the comma is placed, and when this is done the heading seems a perfectly natural one even though the maximum potential recorded be -.825 volts.