

By the will of Professor A. Marshall Elliott, the Johns Hopkins University receives his library, and the sum of \$2,000 for the establishment of a scholarship for graduate students in the department of Romance languages.

THE twenty-fourth annual convention of the Association of Colleges and Preparatory Schools of the Middle States and Maryland, will be held at Lehigh University on November 26 and 27. The three sessions of the convention will be devoted to the discussion of mathematics, science and English respectively. President Drinker, of Lehigh, will give the address of welcome. The address of Dr. J. M. Greene, of the New Jersey State Normal School, president of the association, will be on "Educational Economics."

WE learn from *Nature* that the Duke of Connaught on November 5 laid the foundation-stone of the new university hall of the Cape University. The council of the university presented an address, in which the hope was expressed that the union now accomplished in South Africa would lead to the conversion of the present Cape University into a teaching university for the whole of South Africa, by incorporating existing institutions of higher education as constituent colleges, and by creating chairs for those subjects for which no single college could provide. In replying, the Duke of Connaught said he trusted that the funds necessary to convert the Cape University into a great teaching university would be forthcoming. At a university luncheon, held on the same day, Mr. Malan, minister of education, announced that Mr. Otto Beit had agreed to divert the sum of £200,000, bequeathed by the late Mr. Alfred Beit for the foundation of a university at Johannesburg, to the creation of a great teaching university at Groote Schuur, the estate of the late Mr. Cecil Rhodes outside Cape Town. It was also announced that Sir Julius Wernher has promised to make up the amount to a total of £500,000.

At the University of Virginia the following promotions have been made: J. L. Newcomb to be professor of engineering, Edgar Graham

to be adjunct professor of chemistry; David Vance Guthrie to be adjunct professor of physics. W. S. Rodman, of the Massachusetts Institute of Technology, has been appointed adjunct professor of electrical engineering.

DISCUSSION AND CORRESPONDENCE

THE REFORM OF THE CALENDAR

TO THE EDITOR OF SCIENCE: The several suggestions for the simplification of the current calendar made in your columns by Reininghaus (July 29), Slocum, embracing those of Cotsworth (September 2), Patterson (October 14) and Dabney (October 21) awaken the hope that a calendar can be contrived which will be much superior to the present one and which at the same time will not encounter so much prejudice and human inertia as to be fatal to its adoption at an early date. It is, however, of the first importance that the new calendar be so well matured before its adoption is seriously urged that it will not itself need to be laid aside for something better by the time it has fairly come into use. To this end suggestions from various points of view followed by a period of deliberate study and tentative combination may well be regarded as indispensable to the best ultimate results. As a possible contribution to this preliminary work, I venture to suggest a calendar that embodies many of the excellent suggestions already made, but instead of introducing a 13th month, makes use of only 12 months of 4 weeks (28 days) each, bunching these into four groups and placing the remaining four weeks between these groups so as to set out the four seasonal quarters of the year distinctly. The purpose is to facilitate the use of the *quarters* of the year as convenient time divisions of an order intermediate between the month and the year. The quarters of the year already have a large place in the accountings of the industrial and financial world and are likely to grow into very important time divisions.

The integers of the proposed scheme are these:

(a) *Quarters*: Corresponding measurably to the *four seasons*.

(b) *Months*: 12 of 28 days (4 weeks) each, assembled in groups of three terminated by a single closing week with a special designation. All months to begin on Monday, as suggested by Patterson.

(c) *Weeks*: 52 of 7 days each, all beginning with Monday. Forty-eight of the weeks, in groups of 4 each, constitute the 12 months. The remaining 4 weeks of the 52, viz., the 13th, the 26th, the 39th and the 52d, to be attached severally at the end of the four three-month groups to make up four symmetrical quarters of 13 weeks each. These terminal weeks might be designated as closing or quarter-end weeks; but each is to have its own special name, the 13th to be Easter week, the 26th Julian week, the 39th Gregorian week and the 52d Christmas week. In large measure these might concentrate into themselves the holidays, short vacations, book-closing periods, etc.; and so come to have other special designations suited to the various vocations.

(d) *Odd Days*: The odd day of the usual year, the 365th day, to be New Year's Day, and to be *dies non* so far as the week and the month are concerned, as proposed by Patterson, but to be grouped with the preceding quarter as the end-day of the old year and as the start-day of the new year. The adjustment for the odd one-quarter day to follow the Julian method and to be made by a Leap Day following New Year's Day every fourth year, and to be a *dies non* also so far as week and month are concerned, as also proposed by Patterson, but to be grouped with the preceding quarter.

The necessary correction of the Julian reckoning to be made by the Gregorian method as now, by means of the periodic omission of the Leap Day.

Some further details of the scheme, particularly the places and names of the transition or quarter-end weeks, will appear in the following table which throws the scheme into form:

FIRST QUARTER

(Winter season, northern hemisphere)
(Summer season, southern hemisphere)
January—4 weeks, 28 days.

February—4 weeks, 28 days.

March—4 weeks, 28 days.

Close Week—Easter week.

SECOND QUARTER

(Spring season, northern hemisphere)

(Fall season, southern hemisphere)

April—4 weeks, 28 days.

May—4 weeks, 28 days.

June—4 weeks, 28 days.

Close Week—Julian week.

THIRD QUARTER

(Summer season, northern hemisphere)

(Winter season, southern hemisphere)

July—4 weeks, 28 days.

August—4 weeks, 28 days.

September—4 weeks, 28 days.

Close Week—Gregorian week.

FOURTH QUARTER

(Fall season, northern hemisphere)

(Spring season, southern hemisphere)

October—4 weeks, 28 days.

November—4 weeks, 28 days.

December—4 weeks, 28 days.

Close Week—Christmas week and odd days.

The special feature of the scheme is the symmetrical assembling of twelve months of strictly uniform composition into four seasonal groups with a close week each. Each group therefore consists of 13 weeks and together they embrace the 52 weeks of the year. The odd days are placed so as to emphasize the Christmas holidays that mark the close of one year and the beginning of the next. By thus using the odd days to emphasize the transitions between the years and the odd weeks above those that make up the twelve uniform months to mark the transitions between the quarters, almost perfect symmetry is secured, and the close weeks of the quarters should lend their good offices to secure uniformity of practise in the periodic work of the world of affairs, of society and of education.

The feature that is perhaps most debatable in this scheme is the shifting of March, June, September and December forward in the seasonal scheme. This avoids dividing the winter season (summer season of southern hemisphere) between two years, which is our present method in the grouping of the months

into seasons, but which is usually ignored in commercial and educational practise. The quarters as grouped in the scheme proposed are those that are most recognized in the current time divisions of the business, social and educational worlds. There are indeed climatic reasons for our seasonal grouping in disregard of the year division, but, after all, March is only slightly less wintry than December, and June scarcely more summery than September. A strict seasonal adjustment is embarrassed by the lag of the climatic effects behind their astronomic causes and by the opposite phases which the seasons assume in the northern and southern hemispheres. In the tropics the influence of conditions other than the sun's position on the nature of the seasons adds to the difficulty. To this is added also the lack of strict adjustment of either the present or the proposed calendar to the astronomical divisions initiated by the equinoxes and solstices. Even if a strict adjustment of the calendar to these were made, the climatic effects would lag behind the astronomical divisions in a vague and fluctuating way. Under the proposed scheme, each seasonal quarter would start about ten days after the astronomic event that may be said to initiate it. This may be construed as some recognition of the lag of climatic effect, though it is merely accepting current usage in starting the new year.

With the shifting of the months as proposed, and accepting the ten-day delay as a compromise lag, each quarter would mark a climatic movement of a single kind, a phase of increase of insolation or a phase of decrease of insolation; the winter, a movement from the lowest insolation in the northern hemisphere to medium insolation (the opposite, of course, in the southern hemisphere); the spring, a movement from medium insolation to the highest insolation; the summer and the fall, the corresponding phases of decrease. While as systematists and as scientists we might prefer a shift from present usage to the exact dates of the solstices and equinoxes, it would probably be asking too much of the inertia of mankind to change the calendar so as to effect this. Besides, these astronomical

divisions are not strictly equal, and that would give us trouble.

In the matter of holidays, the scheme seems to lend itself fairly well to current practise and is perhaps well suited to mold future practise as well. The 28th day of December would always fall on Sunday and be the immediate fore-runner of Christmas. Christmas itself would always fall on the Monday of Christmas week. Our greatest holiday would thus have a distinctive place of its own at the head of its special week, instead of falling in the midst of a month and on a constantly shifting day of the week. The winter holiday season would be closed usually by New Year's Day, but on every fourth year by Leap Day, following New Year's Day. The Christmas holidays would thus be lengthened to nine days or to ten days.

Easter week would always begin on Monday, the 85th day of the year, and the days of the week might have the special designations, Easter Tuesday, Easter Wednesday, and so on, ending with Easter Sunday, which would appropriately be followed by the spring season.

The Julian week would embrace our national holiday, which would always be Julian Thursday. The Julian week might well come to embrace the observances that mark the end of the educational year.

The Gregorian week would fall at a time well suited to the harvest festivals, the fairs, etc.

The close weeks between each of the three-month groups would form a natural time for closing books for the quarter, rounding up accounts, making out quarterly reports, holding official corporation meetings, declaring dividends, etc., in the world of affairs, and for vacations and rest intervals in the educational and professional worlds.

The authors of the rectifications that gave us our present calendar are recognized in the naming of the Julian and Gregorian weeks.

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ANTARCTICA AS A FORMER LAND CONNECTION BETWEEN THE SOUTHERN CONTINENTS

LEST my position with reference to this subject be misunderstood, I wish to state that my