has made all the necessary observations of the formation of the mountain and the different heights, it will proceed to explore the mountain of Tupungato and also Mercedario, in the province of Coquimbo, which is nearly as high as Aconcagua.

UNIVERSITY AND EDUCATIONAL NEWS.

HARVARD UNIVERSITY receives $50,000 by the wills of the late Miss E. A. Haven and Miss C. M. Haven. Dartmouth College receives $15,000 from the same source, and Smith College $3,000 from Miss E. A. Haven.

MR. C. W. SPAULDING, lately Treasurer of the University of Illinois, is said to have used for his own purposes $400,000 in bonds and a large amount of money belonging to the University.

PRESIDENT DWIGHT, of Yale University, in his annual report recommends that the fiftieth anniversary of the Sheffield Scientific School, which occurs this year, be celebrated by suitable exercises. He states that a new building for the departments of physiology and morphology is needed and hopes that funds will be provided during the year. Gifts and bequests to the University during the last ten years have amounted to more than $4,000,000.

FROM the report of Cambridge University for 1896 it appears that during the year the University conferred 679 degrees of Bachelor of Arts, 33 of Bachelor of Law, 6 of Doctor of Science and 1 of Doctor of Letters. The total receipts of the University were upwards of £41,000.

WE stated recently that in nearly all cases the State universities had remained non-partisan. We must now record with regret the fact that the Populists, on securing a majority in the Board of Regents of the Kansas State Agricultural College, have dismissed a President who had served for eighteen years, to make room for a young man 'in harmony with the fundamental principles of the administration,' and have removed other members of the faculty and employees.

MR. JUNIUS MORGAN, a Princeton graduate resident in New York, who is known for his bibliographical collections, some of which he has recently contributed to the Princeton University library, has been appointed associate librarian in that institution. It may be added that the north stack room of the new library building at Princeton is nearing completion and the main collections are to be removed to it during the coming summer.

MR. W. B. MORTON has been appointed professor of natural philosophy in Queen's College, Belfast, filling the vacancy caused by the resignation of Dr. J. D. Everett.

PROFESSOR R. VON LENDENFELD, of Czernowitz, has been appointed professor of zoology in the German University at Prague. Dr. v. Below, of the Münster Academy, has been called to the chair of zoology at Marburg. Dr. Ludwig Heim has been appointed assistant professor of bacteriology. Dr. Gadamer has qualified as docent in pharmaceutical chemistry, at the University of Marburg.

DISCUSSION AND CORRESPONDENCE.

MR. LOWELL'S OBSERVATIONS OF MERCURY AND VENUS.

THE *Monthly Notices* of the Royal Astronomical Society for January, 1897, contains plates of drawings of Mercury and Venus, made by Mr. Lowell, at the Flagstaff Observatory, in 1896. The markings on Mercury were 'at once conspicuous' with the new twenty-four-inch object-glass; those on Venus are 'perfectly distinct and unmistakable.' The undersigned made a considerable number of observations of Mercury in the years 1873–1885, and a very large number of Venus in the years 1873–1890, with telescopes of six, sixteen, twenty-six, thirty-six inches in aperture, without ever once seeing markings of the character depicted by Mr. Lowell. Other markings of the class drawn by Schiaparelli and many other observers have, on the other hand, been seen and recorded whenever the conditions of vision were good. I have no hesitation in saying that such markings as are shown by Mr. Lowell did not exist on Venus before 1890. It is my opinion that they do not now exist on the planet, but that they

are illusions of some sort. Their general character* is what would be shown if the adjusting screws of an objective were set up too tightly, producing a set of strains in the glass, or if the objective were strained by its cell. Strains of this sort will sometimes produce faint companions to stars sufficiently bright. A comparison of all the drawings of Venus available in the library of the Lick Observatory is very instructive. All observers, except those at Flagstaff, see faint markings of one class, while those drawn by Mr. Lowell are of a totally different nature.

Venus has been observed on very many occasions at Mt. Hamilton, with our essentially perfect twelve-inch object-glass, in the years 1888–1897, without once seeing markings of the kind drawn by Mr. Lowell, or 'distinct' markings of any kind. Faint and indistinct markings, of the character of those drawn by scores of observers for a century past, are, however, seen when the circumstances are good.

The foregoing notes seem to me to throw doubt on the reality of the markings reported from the Flagstaff Observatory. Until Mr. Lowell's observations are fully comfirmed by other observers with other telescopes, it will be wise not to accept them unreservedly.

EDWARD S. HOLDEN.

MT. HAMILTON, March 9, 1897.

*Six or more radial rays, thicker at the outer rim of the image of the planet.

FURTHER CONSIDERATIONS ON THE SYSTEMATIC POSITION OF TARSIUS.

PROFESSOR HUBRECHT has replied with some warmth to the paper I lately published in SCIENCE, in which I attempted to show that, in my opinion, *Tarsius* is more of a lemur than an ape, although in reality an annectant type between the two. The objection I raised to placing *Tarsius* among the apes and the effect of this transferral on the classification of the Primates based on their osteology related to recent forms. Professor Hubrecht is probably quite aware that, when we introduce the fossil Primates into the question of classifying the recent forms, the apparently sharp lines of demarcation between the skeletons of recent lemurs and apes disappear.

I entirely agree with Professor Hubrecht in the idea that classification should be based as far as possible on phylogeny, and that the only truly scientific arrangement of animals depends upon a knowledge of their whole organization, both embryonic and adult. I claim, however, that the paleontological method in determining phylogeny is more nearly accurate than the embryological, as in the latter many characters are lost and innumerable cænogenetic variations are introduced which the embryologists often cannot distinguish from real homogenetic structures. The great number of phylogenetic trees based on embryology which are annually cut down is amazing, and in fact the truth of the theory of recapitulation as applied to the embryonic stages is now somewhat questioned.

I do not at all regret quoting the name of Francis Maitland Balfour in regard to his warning against placing too much reliance on placental arrangements as criteria for the classification of the Mammalia, and hold that it applies directly to the question of the systematic position of *Tarsius*. On this side of the Atlantic we do not all follow the Neo-Darwinians in believing that the germinal products are locked up in iron safes as it were, and not affected by external conditions as the rest of the organism.

I will now sum up my principal reasons for not accepting Professor Hubrecht's views that *Tarsius* is only related among the Primates to the Anthropoids:

1. It has not been shown as yet that the placenta in the lemurs is not a derivative of the chorion as in the apes.*

*M. A. Milne-Edwards remarks: "Or, l'allantoide des Indrisines est si facile à detacher des parties adjacentes, qu'il me semble peu probable qu'il ait laissé un de ses feuillets adhérent au chorion, et il y a tout lieu de penser que l'explication mécanique de la production du placenta, telle qu'elle a été proposée par M. Baer et Bischoff n'est pas toujours l'expression de la vérité, et que, dans certain cas au moins, l'arrivée des vaisseaux sanguins de l'allantoïde à la face externe du chorion provoque une hypertrophie dans les parties correspondantes du tissu de cette envellope fœtal, et que c'est de cette manière que se forme le placenta, et non à la suite de l'accolement d'une portion des parois de la vesicule allantoïdienne." Mammiferes de Madagascar, p. 284.