

half's further ascent brought them to the foot of the three highest pinnacles, which they calmly and systematically climbed one after another. Although the state of the atmosphere and the physical strain of exertion remained the same as on the previous ascent, yet this time they felt far less exhausted because their condition morally was so much more favorable. The central pinnacle reached a height of about 19,700 feet, overtopping the others by 50 to 60 feet. Dr. Meyer was the first to tread, at half-past ten in the morning, the culminating peak. He planted a small German flag, which he had brought with him in his knapsack, upon the rugged lava summit, and christened that—the loftiest spot in Africa—"Kaiser Wilhelm's Peak." After having completed the necessary measurements, the travellers were free to devote their attention to the crater of Kibo, of which an especially fine view was obtainable from Kaiser Wilhelm's Peak. The diameter of the crater measured about 6,500 feet, and it sank down some 600 feet in depth. In the southern portion the walls of lava were either of an ash-gray or reddish-brown color, and were entirely free from ice, descending almost perpendicularly to the base of the crater; and in its northern half, the ice sloped downwards from the upper brim of the crater in terraces, forming blue and white galleries of varying steepness. A rounded cone of eruption, composed of brown ashes and lava, rose in the northern portion of the crater to a height of about 500 feet, which was partly covered by the more than usually thick sheet of ice extending from the northern brim of the crater. The large crater opened westwards in a wide cleft, through which the melting water ran off, and the ice lying upon the western part of the crater and the inner walls issued in the form of a glacier. What a wonderful contrast between this icy stream and the former fiery incandescence of its bed! And above all this there reigned the absolute silence of inanimate nature, forming in its majestic simplicity a scene of the most impressive grandeur. An indelible impression was created in the mind of the traveller to whom it had once been granted to gaze upon a scene like that, and all the more when no human eye had previously beheld it. And certainly, as they sat that evening in their little tent, which they finally reached at nightfall, after a most arduous return march through the driving mist, and carried their thoughts back to the expeditions of 1887 and 1888, they would indeed have changed places with no one. After giving further details of the expedition, Dr. Meyer said that on Oct. 30 they sorrowfully bade farewell to Kilima-Njaro, the most beautiful and interesting, as well as the grandest, region in the Dark Continent.

NOTES AND NEWS.

THERE are said to be at least a hundred thousand acres of phosphate rock scattered through the western part of the State of Florida. The deposits average ten feet in depth, and are rich in phosphate of lime.

— The new government dry-dock at the Brooklyn Navy Yard, which has been in process of construction a little more than two years, was formally opened on the 10th instant, the double-turret monitor "Puritan" being the first vessel docked. The dock is 530 feet long, with an extreme width of 130 feet 4 inches, and a depth of 32 feet 8 inches. The depth of water over the gate-sill at the entrance is 25 feet 6 inches at high water. The pumps have a capacity of 80,000 gallons per minute, and can empty the dock, when no vessel is in it, in an hour and a half.

— Summer courses for 1890 at Harvard University in the following-named subjects will be given: four courses in chemistry (viz., general elementary chemistry, qualitative analysis, quantitative analysis, and organic chemistry), a course in botany, two courses in physics (viz., elementary physics and a higher course in experimental physics), two courses in geology (viz., an elementary course given in Cambridge, and an advanced course given in the field in New York, Connecticut, and Massachusetts), three courses in French, two courses in German, two courses in field engineering (viz., topographical and railroad surveying), a course in physical training, courses in the Medical School. These courses are

chiefly clinical, and are designed for graduates and advanced students. For information concerning all courses, except those in the Medical School, address the secretary of Harvard University, Cambridge, Mass. For information concerning the courses in the Medical School, address the secretary of the Harvard Medical School, Boston, Mass.

— The "Princess Louise," which arrived at Victoria, B.C., from Skidegate and way ports, on the evening of April 24, brought news that on Feb. 24 an earthquake shock was felt on all the islands around Skidegate, especially on the west coast of Queen Charlotte Islands, where a few old shanties were levelled to the ground. The totem-poles of the Indians shook like leaves, and in some places the earth was cracked. The shock lasted for about thirty seconds, during which time the Indians were wild with fright. A number of them ran to the church and crowded in. Since that time there have been about twenty different shocks, the last one being on the 12th of April, although none were near as severe as the first. A very slight shock was felt in the Skeena.

— State Geologist Winslow of Missouri made a report, May 6, to Gov. Francis, of the operations of his bureau during the month of April. During the month the work of the survey progressed most favorably, not having been interrupted by the variable conditions of weather which caused serious hinderance during the month of March. Excellent progress has been made in the detailed mapping of the coal fields, so that now an area of over two hundred square miles has been covered, and is ready to be plotted on the final sheet. Field-work in connection with the investigation of the zinc and lead deposits was suspended early in April, and since that time Mr. Jenny and his assistant have been busy preparing a report of their operations and results, which will be published in a forthcoming bulletin. Early in April the investigation of the clay deposits in the vicinity of St. Louis was begun, and a reconnaissance of the area including these deposits is completed, and some samples are collected. Work in Iron and other south-eastern counties was interrupted in the early part of the month, but since then has been prosecuted continuously, and much has been accomplished in the systematic mapping of this section of the State. The examination of the mineral waters of the State has also made considerable advance. Springs have been visited in Henry, St. Clair, Benton, and Johnson Counties, and samples of water for analysis have been collected from a dozen different localities. During the month, Bulletin No. 1, the first publication of the survey, has been prepared, published, and distributed, nearly fifteen hundred copies having been sent out to people in the State and elsewhere. Cases for the State cabinet have been put up in one of the rooms of the survey, and are now nearly in a condition to receive specimens. The collections of the survey already include over eight hundred specimens. Some of these have been prepared, and will be labelled for exhibit in these cases.

— Mrs. Isabel Mallon has been added to the editorial staff of *The Ladies' Home Journal* of Philadelphia. Her new position makes her the best-paid fashion-writer in the country.

— Three cash prizes, of fifty, thirty, and twenty dollars respectively, are offered by *Public Opinion*, the eclectic weekly magazine of Washington, D.C., for the three best essays, not exceeding two thousand words, on the subject "The Study of Current Topics as a Feature of School, Academic, and College Education." The papers must reach *Public Opinion* prior to June 15, and the award will be made by a committee of three well-known educators, to be selected and announced before the close of the competition. The prize essays will be published over the signatures of the writers July 5. Particulars of the contest may be had by addressing the editor of *Public Opinion*.

— Bulletin No. 1 of the Missouri Geological Survey, just issued, contains a report of the State geologist, Arthur Winslow, and an article by him on "The Coal-Beds of Lafayette County;" "The Building Stones and Clays of Iron, St. François, and Madison Counties," by G. E. Ladd; "The Mineral Waters of Saline County," by A. E. Woodward; and "A Preliminary Catalogue of the Fossils occurring in Missouri," by G. Hambach. This bulletin is the first of a series to be issued at intervals.