

one-pounders into the Spanish. Capt. Barclay of the Amphitrite used six-pounders, and the Cincinnati five-inch guns.

The ships landed 250 men during the fight and reinforced the lighthouse. A machine gun, rifles and ammunition were left by the retreating Spaniards.

Ensign Crosley took the refugees off at daybreak and has gone to Ponce. Our flag is still on the lighthouse, but the forces have been withdrawn.

The Amphitrite's guns cover the lighthouse ready to annihilate it if our flag is hauled down.

It is one of the important lights on the island.

The Cincinnati has gone to the San Juan blockade.

Washington, Aug. 11.—Gen. Greeley has received a dispatch from Col. Allen, who is now at Ponce, Porto Rico, stating that the telegraph lines have been extended, first from Ponce through Guayama and Arroyo to the headquarters of Gen. Brooke; second, through Guayama to the headquarters of Gen. Wilson; third through Adjuntas and Utuado to the headquarters of Gen. Stone, and fourth along the coast to Guanica. These lines all extend to the cable station and they place this country in communication with more than half of the island of Porto Rico.

Washington, Aug. 11.—The war department has received two dispatches from Gen. Miles, under date of Ponce, August 10, as follows:

Secretary of War, Washington:

The following is a list of wounded in the Sixteenth Pennsylvania, in the skirmish beyond Coamo, August 9th:

Corporal Barnes, company E, left side.

Private C. C. Frank, company C, right side.

Private George Whitlock, company C, right side.

Private L. Ubold, company E, right elbow.

Private V. Jolly, company F, left arm.

MILES.

Secretary of War, Washington:

Have established communication with Gen. Brooke, who reports that in a skirmish on the 8th with the enemy, about three miles north of Guayama, Gen. Gaines forced enemy to retreat.

The following men of the Fourth Ohio were wounded—none killed:

Capt. Edward O. Thompson, company K, in right breast.

Private Samuel J. Jones in right knee.

Private Noble W. Haniaker, company C, in ankle.

Private Harry S. Haines, company C, in right foot.

Private William Jeddington, company A, in right hip.

MILES.

Washington, Aug. 11.—The war department late this afternoon received the following:

Ponce, via Bermuda, Aug. 11. Secretary of War, Washington:

The following message from Schwan:

"Camp near Hormigueros, Aug. 10.—

Advance guard including cavalry of this command, while reconnoitering northwest of Rosario river, near Hormigueros, met strong Spanish force which lay concealed in hills north of Mayaguez. In general engagement that followed Lieut. Byron, Eighth cavalry, my aide-de-camp, was wounded in the foot and Private Fernberger, Company D, Eleventh infantry, and one other private, were killed and 14 enlisted men were wounded. It is reported that the most if not the entire Spanish garrison of Mayaguez and surrounding country, consisting of 1,000 regulars and 200 volunteers, took part in the engagement. We drove the enemy from his position and, it is believed, inflicted heavy losses. A wounded Spanish lieutenant was found in the field and brought in our lines. Conduct of officers and men

beyond all praise. I propose to continue my march on Mayaguez at an early hour tomorrow.

SCHWAN."

(Signed)

MILES."

SCIENTIFIC MISCELLANY.

Globe-making has not kept pace with map-making, and Prof. Ellsee Raclus points out that a genuine revolution may be accomplished when the former takes its deserved place in science and practice. Only when geography is taught by large and accurate models shall we gain a true idea of the earth's surface. A small globe cannot represent the highlands and mountains, but on a scale of at least 1 to 1,000,000 the heights and depths can be shown, and on a sphere of 1 to 100,000 even hillocks 50 yards high can be made to appear. The plan of exaggerating altitudes is unscientific and to be discouraged. The construction of a huge globe has long been a pet scheme with the distinguished French geographer, and he urges that the time for it has now come, that the work should be made as accurate as possible and kept continually under correction, and that it would not only be a thing of beauty but a standard study.

Calcium has been described by most workers as a yellow metal. M. Moissan supposes that his error has been due to impurities, as none of the methods until now attempted have yielded the pure metal, which is white. This author describes two ways of reducing the impurity to less than one per cent. In the first, the calcium is dissolved in liquid sodium at a dull red heat, and separates out in brilliant hexagonal crystals on cooling, when the sodium may be removed by cautiously treating with absolute alcohol. Electrolysis of fused calcium inside yields similar white calcium crystals.

Trees that weave bed-clothing are among Ecuador's wonders. A recent description of an Indian blanket of that country states that it is more than six by five feet in size, is as soft and pliable as flannel, and can be rolled and placed in a shawl-strap without injury, and that it is simply the inner bark from a section of the trunk of the demajagua tree.

The valuable oceanographic researches of the Prince of Monaco began in 1885 with a sailing schooner of 20 tons, for which he afterward substituted a steam vessel of 560 tons. This has now been supplanted by a second steam vessel of 1,400 tons, constituting a splendidly equipped marine laboratory. The earliest work included a study of the ocean currents. Floats, numbered and recorded, were dropped into different parts of the North Atlantic, and 226 out of a total of 1,675 were returned by 1892. The travels of these floats proved the existence of an immense vortex, beginning at the Gulf of Mexico, passing the banks of Newfoundland at a tangent, proceeding eastward toward the European coasts, turning southward from the English channel to Gibraltar, then westward, encircling the Canary islands, and having a center oscillating near the Azores. The drift in this vortex ranged from 5.18 to 10.11 miles per day, the mean for the North Atlantic being 4.48 miles. Great numbers of animals—many representing new species—have been captured by ingenious methods from every zone of the ocean from the surface to the deepest bottom, but great difficulty has been experienced in taking the more agile and suspicious creatures living in the middle depths, and some of the rarest specimens were secured only in the dying vomitings of a sperm whale. An interesting fact shown is the enormous numbers of some animals existing in

certain places, one trap having taken in twenty-four hours from a depth of 700 fathoms, not less than 1,198 individuals of the species that before as known only from one or two imperfect specimens. Of great practical importance is the finding almost everywhere in the North Atlantic of large tunny fishes, which, with other specimens, have a liking for the shelter of floating logs and wreckage, and which might often prove the salvation of starving victims of shipwreck if the precaution were taken of supplying ships' boats with hooks, lines and a fish spear.

What appears to be a hybrid between the lion and the tiger, has been exhibited in a London museum. The animal is about two years old, and by artificial light its ground color is that of the lion, while faint tiger-stripes are distinctly visible, especially on the tail. Further marks of the tiger are seen at the corners of the mouth, where the hairs, which are white in lion, are jet black.

In a new method for converting peat into charcoal, M. B. Jansen uses cylindrical retorts heated by electricity. The retorts are lined with asbestos, or other suitable non-conductor, which is wound spirally with an iron wire, while another winding is embedded in asbestos, surrounding the core. These wires serve as resistances for developing heat from the electric current passing through them. It is claimed that the heating is made more uniform and thorough, as well as more exact, than by any other process, and destructive burning is avoided, while time is saved.

The heaviest substance known is the metal osmium, whose specific gravity is 22.477, while that of gold is 19.265, lead 11.367, iron 7.79, and lithium—the lightest solid—is only 0.594. Osmium is also the most infusible of the metals. It resists the oxyhydrogen flame, in which platinum and iridium flow like water, and is even almost entirely unaffected by the electric arc, which readily melts the extremely refractory ruthenium.

Statistics lately collected in various localities in Bavaria and in Sweden prove a definite relation between the hardness of the drinking water used and the decay of the teeth. Teeth were most affected where the water was soft, or contained little of the alkaline earth salts, and the harder the water the sounder were the teeth.

Testing a lamp burning olive oil under various atmospheric pressures, Prof. Benedicenti has proved that combustion is as complete in the rarefied air at the summit of a mountain 20,000 feet high as at sea level, but that it becomes considerably slower as the height is increased.

A French army surgeon claims several advantages for a bullet of compressed paper covered with polished aluminum, the chief being that the wounds are surgically clean, healing with little risk of blood poisoning.

The production of jet black roses is the remarkable botanical feat claimed by a Russian horticulturist.

A car load of lemons and other fruit obtained by the efforts of the Red Cross society to be forwarded to the sick soldiers of Gen. Shafter's army, left for the East today (Monday.) It is consigned to Col. J. Morris Brown, U.S.O.A., Staten Island military hospital. Besides lemons the car contains grape fruit, oranges and other fruits.