

St. Petersburg, and thus civilization is carried to the oldest of the Aryan tribes.

The Russian merchants are opening warehouses along the line of the railroad, and supplying the inhabitants of the desert on the north, to Khiva, Bokhara, and Samarkand, and the Persians to the south. They have established entrepôts at Merv and Pendjeh, which are already supplying the inhabitants of Herat with Russian manufactures and stores.

In America the locomotive carried with it the emigrants who inhabited and cultivated the land. In Asia the locomotive is retracing the paths which the human race trod in its early days, and carries with it all the wonders that the race has gathered up in its long journeyings. This desert was once the garden of the world; but first wars, and then constant incursions of the Turkomans, have devastated it. The character of the Turkomans we learn from Vambéry, who says in one of his books that they "have the well-deserved reputation of sparing nobody, and would even sell the prophet himself into slavery if he should fall into their hands;" and in another that they have a proverb which says, "If you see a party attacking the house of your father and mother, join them in the plunder and robbery." Now brigandage and slavery have been to a large degree suppressed, and under the Russian rule the old irrigating canals will be re-opened, and this great desert, rich when watered, will be as densely populated as in the early ages. Thus the railroad will become the civilizer of the old world, as it has been of the new.

GARDINER G. HUBBARD.

GEOGRAPHICAL NOTES.

Late news from Alaska.—A weekly newspaper, the *Alaskan*, has been started at Sitka. It is a neat quarto, and intended to gather information about the territory, and promote its development. It is the fourth newspaper which has actually been printed in Alaska, though several periodicals treating of Alaskan matters have been issued at San Francisco in past years. The *Alaska times*, a large quarto, edited by T. G. Murphy, appeared in May, 1868, and existed about two years during the military occupation. Some of the numbers were printed on brown paper for want of other material. This was followed in 1875 by a little folio sheet printed on the press of the single military company then left at Sitka, and named the *Alaska bulletin*. About seven fortnightly numbers appeared; and in October, 1876, a similar issue, under the name of the *Sitka post*, was begun, and terminated with its fourteenth number, on the final removal of the troops from

Sitka. The present publication is of a more serious character than its predecessors, and the seven numbers which have reached us contain many items of interest which might otherwise have been lost. A weekly summary of the meteorology is furnished by the local signal officer. On the 12th of December, the editor notes that the temperature was stationary at 45° F., and he received a cabbage, cut that week in one of the local gardens, untouched by frost, and of which the solid head measured about fifteen inches in diameter. A canoe express took the weekly issue from Sitka to Juneau in three days, the distance being about 180 miles. A new town, to be called Edwardsville, was going up near the mines on Douglas Island. The Treadwell mine, though somewhat hampered by a scarcity of water, turned out \$75,000 in bullion in the last month, and the owners were enlarging its facilities. The Silver Bay mines near Sitka had been taken in hand by a company of capitalists. The oil-works at Killisnoo were running to their utmost capacity, and sent down by the last steamer 300 tons of herring-oil. M. E. Hess, writing from Fort Reliance, says that the natives make portages from that place to the Tananah River in eight days. From the head of the latter to the Copper River they go in from four to seven days. The Tananah heads so near the White River that the Tenan Kutchin Indians cross with their furs, and build a raft, on which they descend the White River to the Yukon, and the latter to Fort Reliance, where they trade, thus drifting about four times the direct distance from their homes to the fort. Mr. Hess had concluded to winter on the White River. He reports gold in placers and in quartz in several places, and also what he supposes to be nickel ore. The prospectors on the Lewis River made from \$200 to \$500 per man on the bars of that river during the short summer. They report the climate as resembling that of Montana.

The Sakeis of Malay peninsula.—The last annual report of the British resident at Selangore, Malay peninsula, contains some notes on the curious tribe called Sakeis, of whom there are about eight hundred persons. They are divided into nine sections, whose chiefs are called Batins. They live chiefly by collecting rubber and other products of the jungle. They have no formal religion, but are very superstitious, believe in good and bad auguries, consider certain birds sacred, and abandon any settlement where one of them dies. They tattoo the arms by way of ornament, but the tattooing has no tribal or totemic significance. Nothing capable of being eaten comes amiss to them: even scorpions and snakes are acceptable. They kill game by darts, poisoned

with the juice of the upas-tree, projected from a hollow cane, and, for very large game, use a bamboo bow and arrows. They live in bamboo huts about eight feet high, thatched with palm-leaves. They are ugly and timid, but inoffensive. They wear the hair flowing, instead of tied up as the Malays do, and are shorter than the latter, but resemble them in other physical characters. They are gradually becoming accustomed to Europeans; and one or two Malays are attached to each community, on the part of the government, to protect the people from injury or imposition.

The Malpais in Michoacan, Mexico. — Carlos Naulleau has visited the Malpais in Michoacan, Mexico, and from his account we extract the following notes of interest: The Malpais is situated four leagues from Panindicuaro, and is a region four leagues long and two wide, covered with fantastic emissions of a now extinct volcano. The pinnacles and blocks resemble a ruined city, and are so rough and angular that one would need steel armor to make one's way among them unwounded. There are many caverns, natural pits, and shafts to be avoided. The scene is extraordinary: the twisted and sombre rocks are destitute of the smallest sign of vegetation. It is said that in this retreat the ancient Indians fortified themselves against Cortes and his followers. The place is a natural citadel, within which, it is asserted, the aborigines built themselves a town surrounded by a triple wall with only one entrance. One legend states that thousands found a refuge here, and that the place was twice visited by a pestilence, the second time only sixty persons escaping to Zacapu. There, in the library of the Franciscan fathers, the Rev. Fermin Martinez, who has given the subject much study, has found some records relating to the fugitives. Among the higher parts of the confused masses of lava are several structures formed like *teocallis*, surrounded with a narrow stairway, and connected with each other by paths made of blocks of lava. There are also several ruined houses in different places. The most remarkable *teocalli* measures at the base thirty-five by twelve varas, and is fifteen varas high. It has been excavated for antiquities. At a depth of three or four varas were found several small cells built of adobe, each containing a skeleton with a small jar of pottery, many arrow-heads, and a few knives made of obsidian. The investigations were interrupted by banditti, who doubtless supposed that treasures of gold or jewels were being secured by the diggers.

Return of Aubry. — Aubry, who for two years and a half has been travelling in Shoa, Galla- and Somali-land, on a mission from the Ministry of public instruction, has safely returned to Paris.

His companion, Dr. Hamon, succumbed to fever on the eve of his return, and died by the Hawash River, between the Abyssinian mountains and the Gulf of Aden. Aubry was obliged to fight to escape the Somalis. In the confusion his collections of zoölogy and botany were lost; the mineralogical and geological collections, however, were saved, as well as all his note-books, maps, etc. The results of his work will soon be made public.

ASTRONOMICAL NOTES.

Comet 1885 V (Brooks). — We learn from Mr. Barnard of the Vanderbilt observatory, Nashville, Tenn., that he found this comet independently on the evening of Dec. 27, 1885, and telegraphed immediately to Swift his discovery, receiving in reply the announcement that he had been anticipated one day by Brooks. Mr. Barnard had resigned on the 30th of August, 1885, the zone (+ 15° to - 45°) originally allotted to him, and carefully watched since 1882; and it was only in casually devoting a few hours to the field in which he has been so successful that he picked up the new comet. An orbit computed by Chandler and Wendell shows that the comet is decreasing in brightness, having passed perihelion on Nov. 29, 1885.

The Lick observatory. — Professor Holden has written an interesting article for the *Overland monthly*, sketching the history of the observatory to the time of his taking charge. In regard to the immediate inception of astronomical work, he says, "It is of the first importance to find some means of paying the salaries of one or two observers for the years 1886 and 1887, in order that the magnificent equipment may be at once put to its legitimate uses. No great sum is required, but a few thousand dollars at this time would be of real service." It is stated that the first volume of publications of the 'Lick observatory of the University of California' is now in course of preparation, under the direction of the Lick trustees, by Capt. Richard S. Floyd and Professor Holden.

NOTES AND NEWS.

We take the following from Governor Robinson's message to the Massachusetts legislature: "Although no legislation seems to be needed upon this subject [topographical survey], it will not be inappropriate to emphasize the importance of the work, and to commend its successful prosecution under the direction of the state commissioners, acting in co-operation with the U. S. geological survey. During the year 1885 about two