high, in any soil, and thrives in both dry and moist localities. Hardy here at La Plata, where the thermometer reaches 27° F. in winter. It should be used in crossing with other prickly pears. For California and Arizona." (*Fairchild.*) Distributed.

3423. OPUNTIA ANACANTHA. **Spineless cactus.**

From La Plata, Argentina. Received through Messrs. Lathrop and Fairchild (No. 197), 1899.

"From western part of Chaco Province, in very arid, sandy soil. It withstands 27° F. It is almost entirely without spines and is used for forage. The cattle belonging to the Indians of the Chaco eat the stems greedily, and Dr. Spegazzini believes that they live during the summer months principally upon this species. The fruit is red, edible, acid, with many seeds. Should be tested carefully in Arizona and California." (*Fairchild.*) Distributed.

3424. CEREUS CHALYBÆUS.

From La Plata, Argentina. Received through Messrs. Lathrop and Fairchild (No. 203), 1899.

"From the arid portion of the Chaco. The fruits are red, absolutely spineless, the size of goose eggs, with small seeds. The flesh is crisp and cooling. Plants 3 to 4 feet high." (*Fairchild.*) Distributed.

3425. GLYCERRHIZA GLABRA. **Licorice.**

From Smyrna, Asia Minor. Received through Mr. W. T. Swingle, June, 1899.

"This plant yields the ordinary licorice of commerce. It is very abundant in the warm regions along the Meander Valley, in Asia Minor, and in the plain of Amouk, near Antioch. The exports from the port of Smyrna amounted to over $300,000 worth in 1891. A considerable proportion of this licorice is sent to the United States. No definite system of culture is practiced in the Meander Valley, as the plant grows very abundantly in a wild state. The roots are simply dug and dried. It is quite probable that licorice may succeed in some parts of California where the climate and conditions approach those of the Meander Valley. The soil is rather heavy where the best growth of the licorice root is found. This number includes roots obtained near Aidin. It has been suggested that the licorice might be utilized for forage and for green manure." (*Swingle.*) Distributed.

3426–3436. FICUS CARICA. **Smyrna fig and Caprifig.**

This collection of cuttings of Smyrna figs and caprifigs from Aidin, Asia Minor, was lost through the delay caused by the running aground on the Manacles of the steamship *Paris*, by which they were being forwarded.

3437–3439. OPUNTIA FICUS-INDICA. **Prickly pear.**

From Palermo, Sicily. Donated by Professor Borzi, director of the Botanic Garden of Palermo, through Mr. W. T. Swingle; received May, 1899.

"The prickly pear is one of the most extensively cultivated fruits in Sicily, where it is called *Ficudinnia*. In 1853, 8,822 hectares (21,800 acres) were devoted to the culture of prickly pears. More than three-fourths of this area was exclusively occupied by prickly pears. In other cases the prickly pears were mixed in gardens with other fruit trees. In 1896 Signor Biuso Varvaro estimated that no less than 25,000 hectares, or about 62,000 acres, were planted to prickly pears. For several months of the year it is the principal food of the poorer Sicilians. Frequently the flowers are removed in the month of May. This operation, called *scoccolamento*, is performed by a man armed with a pole and with his hands protected by heavy gloves. The operator removes all the flower buds and also the tender joints. As a result of this operation new flowers appear in July, which produce fruits ripening in late autumn, beginning about October 15, whereas the first crop ripens in August. The fruits of the second crop of the prickly pear are most delicious, and are certainly comparable with the best autumnal fruits which can be grown in subtropical countries. It is a curious fact that these second-crop fruits contain more and at the same time sweeter and richer flavored pulp than fruits of the first crop. The following table, taken