## THE OTOCYON.

South Africa, that region which is so productive of strange and remarkable forms in the animal and vegetable kingdom, is also the home of the peculiar beast of prey shown in the accompanying engraving, taken from a drawing of that excellent delineator of animals, G. Mutzel. The scientific name for this animal is Otocyon caffer, or O. megalotis. Its enormous ears are what first attract the notice of spectators. No other beast of prey, with the exception of certain foxes, and we might add-if we except a number of bats-no mammal, has ears developed like those of the otocyon. What seems a necessity to the fox of the sandy desert that offers no shelter, as a means of perceiving the presence of some prey, or an approaching enemy that is hidden from his view by an irregularity in the surface of the ground or by darkness, and what is also indispensable to the nocturnal bat to aid him in catching his buzzing insect prey, seems, at the first glance, an extreme and exaggerated development in one of the canidæ. But if we look closely at the construction of the animal, keeping in mind his manner of life and the nature of his food, which is very different from that of the other canidæ, we will change our opinion. The teeth of the otocyon differ greatly from those of its relations, both in number and in the peculiar construction especially of the molars. They are much more
otocyon, from which we may conclude that these animals are not very numerous or are difficult to obtain. Very few specimens have been brought to the zoological gardens, of which studies could be made, and the subject of our illustration was, unfortunately, very short lived. Lack of proper food after a long sea voyage was probably the cause of its early death. As we stated above, our illustration was taken from the living animal, and is the first that was ever drawn by anfartist, who has thus rendered an'important service to science. We hope that, through the numerous friends and far-reaching connections of the garden, it may be possible to obtain a perfectly healthy specimen of this most peculiar of all the dog-like animals, so that closerobservation may throw more light on its habits. -lllustrirte Zeitung.

## A Modern Model Ranch.

by н. c. hover.
The term "ranch," derived from the Spanish "rancho," is capable of wide application. It fits the rude herdsman's hut amid the prickly pears and bunch grass, and also the magnificent country seat of a California millionaire. But it might properly be limited to the plantation where a farm house is surrounded by ried on, combined it may be with orchards and genera
ered 2,664 acres, all under fence, and saitably divided into timber land, farm land, pastures, alfalfa fields, orchards, and gardens.
Having just attended an "irrigation convention," my curiosity was aroused as to the methods taken to water these extensive grounds. There are two artifi cial lakes, each holding about one million gallons, and supplied by an acequia from the Gallinas River. Two other and smaller lakes are fed by perpetual springs flowing from a small canyon amid the hills. Marvel ous crops are reported as raised by means of this efficient irrigation. Mr. Cravens assured me that the yield from the orchard alone, in 1891, was at the rate of $\$ 800$ per acre. Four crops of alfalfa are cut annually. It should be added, however, that only 350 acre are in actual cultivation, of which 275 acres are in alfalfa.
After a stroll through an adjoining Mexican village, with its quaint adobe huts and its contented peopletoo contented indeed for their best welfare-Mr. Cra vens exhibited, for my amusement, the paces of a fine black mare, of which he was very proud. After show ing the trotting, running, and leaping powers of the creature, he asked me if I thought my Kodak could catch her in the act of leaping a bar. Setting my tri pod, getting the bar fairly within the field, fixing my shutter at the hundredth of a second, I succeeded in


## THE OTOCYON

like the teeth of insectivorous animals than like those of beasts of prey; and this solves the problem. The conclusions which we draw from the construction of the teeth are correct. The otocyon is to a great extent, if not exclusively, insectivorous, and as he prefers, after the fashion of his relatives, to hunt after sunset, a remarkably well developed hearing, by which he can perceive the slightest hum of the beetle or the buzz of the grasshopper, is of the greatest importance to him. The Englishman, Kirk, stated to the Zoological Society of London, in the sixties, that packs of these animals hunted large mammals, such as antelopes, etc., attacking even buffaloes. But Brehm has shown that this is highly improbable, and as we observe the delicate form of the creature, noticing also his teeth, we see that the above statement can hardly be correct.
Our picture shows the form and proportions of the otocyon excellently well. It is about the size of a small fox. The fur is gray spotted with yellow, the legs and the upper part of the tail being darker and the under part of the body somewhat lighter than the rest of the body. The home of our canidæ extends over South Africa, stretching pretty far north, but they are most numerous at the Cape and in Caffraria. The specimen in the Berlin Zoological Garden, from which our illustration was made, came from the German possessions in southwestern Africa and was a present from Hauptmann v. Francois.

Very little is known in regard to the history of the
farming. Having expressed my wish to see such a ranch, in the hearing of gentleman at Las Vegas, an invitation followed to a dinner party at the Romero Ranch. A ride of five or six miles over a charming road brought us to the place. It is also accessible by a witch from the Santa Fध Railroad.
I had been told that the farm house was an "adobe," but the fact had not been mentioned that the adobe was covered with cement stucco, and that there were fine porticoes, observatories, a metallic roof, and hot and cold water throughout, and most other modern conveniences. From a large hall we were ushered into spacious parlors, five sets of sliding doors enabling our host to throw the whole lower floor into one large salon. Elegant furniture, well stocked libraries, a grand piano, and a most charming company of guests, were among our surprises. After dinner we were taken to see the model kennels, hennery, ice house, and the substantial two-story stone barn, carriage house, carpenter's shop, and other surroundings. There seemed to be a most thorough equipment of tools, machinery, and vehicles, among which we noticed a tally-ho coach.
This really princely mansion was originally built by Don Trinidad Romero, from whose hands it passed to the ownership of Arthur L. Cammell, Esq., of Derby shire, England, and finally came into possession of the present owner, Mr. James H. Cravens, to whose hospitality we were indebted for a most enjoyable day. In reply to my inquiries, he told me that the ranch cov-
taking a photograph of "Hermosa" and her rider in mid-air that looked as if they had just been struck by lightning. My faithful Kodak was next turned toward the mansion itself, with a more clear result, though hardly more gratifying.
While the Romero Ranch excels most of the New Mexican homes, the fact should be noted that, as far as I was concerned, it was selected at random from a number that I had thought of visiting, and the fore going description is published for the information of the public about a region that is generally regarded as "arid," and held only by beings half civilized. The tourist who hurries over the broad plains, and whirls across the mountain passes, gets no adequate idea of the imperial domain that is being gradually brought up to the dignity of a great American commonwealth, worthy of an honored place in the sisterhood of the United States.

A NEW process of warping and beaming has been inaugurated at Westfield, Mass., by the building of a machine which takes the yarn direct from the cop or bobbin and winds it upon the $3 / 8$ inch skewer, entirely dispensing with the spools now used in creels for warp ing. By winding on the skewer direct the space occu pied by the heads and barrel of the spool is entirely used for yarn, thus making a great gain in quantity, reducing waste, and enabling one tube of this yarn to make two warps with one tying in, thus securing great saving in time.

