

THE SPRING HAAS.

One of the most familiar of leaping rodents is the spring haas, of Cape Gerboa, sometimes called, from its hare-like aspect, the Cape leaping hare. It is a native of Southern Africa, and is found in considerable numbers upon the sides of mountains, where it inhabits certain burrows which it tunnels for itself in the ground. It prefers sandy ground for the locality of its habitation, and associates together in great profusion in favorable spots, so that the earth is completely honeycombed with its burrows. Being a nocturnal animal, it is rarely seen by daylight, seldom leaving its stronghold as long as the sun is above the horizon. The natives, who set some value on its flesh, take advantage of this habit, and being sure of finding the spring haas at home during the daytime, take their measures accordingly. Placing a sentinel at the mouth of the burrow, they force the inmate to evacuate the premises by pouring a deluge of water into the hole, and as it rushes into the open air it is seized or struck down by the ready hand of the sentinel.

Like the kangaroos, the spring haas prefers rough and rocky ground to a smooth soil, and displays such wonderful agility as it leaps from spot to spot, that it can baffle almost any foe by its mere power of jumping. At a single leap this creature will compass a space of twenty or thirty feet, and is able to continue these extraordinary bounds for a great distance. It is rather a mischievous animal, as, like the common hare, it is in the habit of making nocturnal raids upon the corn fields and gardens, and escaping safely to its subterranean burrow before the sunrise.

With the exception of shorter ears and the elongated hinder limbs, the spring haas is not unlike our common hare. The fur is of a dark fawn, or reddish-brown, perceptibly tinged with yellow on the upper parts, and fading into grayish white beneath. In texture it is very similar to that of the hare. The tail is about as long as the body, and is heavily covered with rather stiff hairs, which, at the extremity, are of a deep black hue. Upon the fore legs there are five toes, which are armed with powerful claws, by means of which the animal digs its burrows, while the hinder feet are only furnished with four toes, each of which is tipped with a long and rather sharply pointed claw.

CHINESE VASE.

Our engraving represents an example of opaque *cloisonné* enameling on metal for which the Chinese have a world-wide reputation. Some of the finer pieces of the ware are valued at several thousand dollars. One of the most elegant of these vases is shown in our illustration.

This vase measures some five feet in height by three feet in breadth. Its prevailing color is sea green, but other colors, such as blue, yellow, and red, appear upon its surface, and the birds, which are marvels of workmanship, have the color of their plumage copied after nature.

The engraving excellently illustrates the exceeding delicacy of the ornamentation, but it is necessary to understand something of the laborious processes by which this effect was produced in order to appreciate its great value.

Enameling, in its broadest sense, is the act of fixing a vitreous substance on any surface by fusion; usually that surface is a metal. Enamels are either transparent or opaque, and are colored by metallic oxides. The processes by which it is embedded upon or in the metal give the names *cloisonné* and *champlevé*.

There are other processes of enameling, but it is needless to speak of them in this connection. In *cloisonné* enameling the pattern is formed by slender strips of metal being bent into required shape, and fixed to the plate. Into the *cells* (whence the name) thus formed, the workman pours his enamel paste, and the piece is placed in the furnace for fusion. When the process is completed, the article is taken out, cooled, and the surface rubbed down and polished.

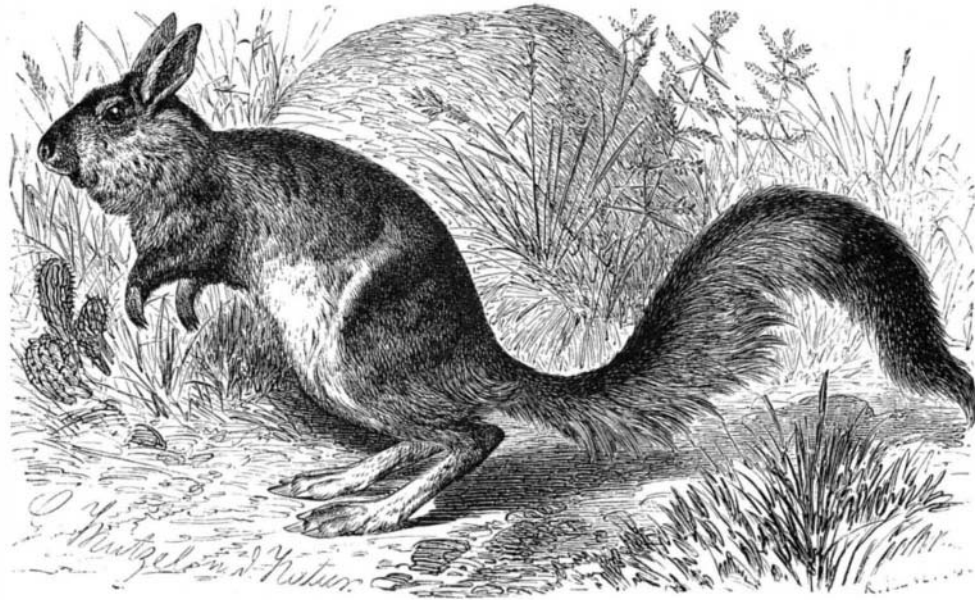
In the *champlevé* process, the spaces for the enamel are dug out with a tool, the raised line of the design thus being a part of the plate itself. The vitreous matter is then introduced into these cavities, the other process being similar to those pursued in preparing the *cloisonné* enamels.

The Frog Poison of Colombia.

M. André, who was sent to South America on a scientific mission by the French government in 1875, communicates an article to *La Nature* on the subject of a poisonous frog met with in Colombia, and from this we copy the following notes:

This batrachian—called by the Indians of the Choco, "Neaara"—although harmless in appearance, carries one of the most terrible poisons known. It is used for poisoning arrows and serves the Choco Indians as a substitute for the famous *curari* employed by the savages of the Ori-

split, scooped out, and put together again, and then wound with fibers and covered with a black, hard-drying gum. The arrows are made of small bamboo rods, which are very slender and about the length of a knitting needle. They are sharpened at one end, wound around with wild cotton at the other so as to make them just fit the diameter of the tube, and are shot out of the blow-gun with great force by the breath of the hunter. The point of these arrows is dipped in a subtle poison which is nothing else than the venom of the frog just mentioned. To obtain the poison for their weapons the Indians go in search of the little batrachian to



SPRING HAAS.—*Helomys Capensis*.

noco and Brazil. The three principal tribes which inhabit the immense forests of the Choco are the Cunas, the Noanamas, and the Chocoos.

Great rivers, such as the Atrato and San Juan, water these vast solitudes where the jaguar, the tapir, immense boas, and the caymans make their quarters, disturbed only now and then by the Indians who come to hunt them. For many ages this hunting has been done by means of a weapon called the "sarbacane" or "bodoquera"—a tube about 10 feet long made of the two halves of a palm stalk, which is

the consistency of curari. The physiological effects of this poison are quite similar to those produced by curari. Introduced into the stomach the substance has no effect, but once introduced into the circulation it causes a momentary paralysis, but one which lasts long enough to kill the animal wounded by a poisoned arrow. A single arrow shot into a roebuck thoroughly disables it in ten minutes, and it takes only double that length of time to kill a full grown jaguar. No antidote is known for the poison, and the Indians are so thoroughly aware of this fact that when one has the misfortune to wound himself with an arrow he lies down quietly to await death without making any efforts to cure himself. The Choco frog belongs to the genus *Phylllobates* erected by Bibron and Dumeril. It is probably only a variety of *P. bicolor* Bibr., which is an inhabitant of trees in Cuba, while the Choco variety is terrestrial. It would be interesting to make experiments on other species of allied batrachians found in the warmer regions of the globe; for, just as the venom of serpents differs considerably according to the species, so the cutaneous secretion derived from batrachians by artificial means may vary in its composition and in the toxic effects which result from its introduction into the circulation.

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Carrier Pigeons at Great Altitudes.

Experiments were recently made in Switzerland to ascertain whether carrier pigeons would start at great altitudes, and would find their way from summits covered with snow as well as from less heights. Two pigeons were set at liberty on the Bergli, at a height of 8,600 feet. After perching for a few minutes on a neighboring rock, they took flight in the direction of the Eiger; but soon after they returned to the hut whence they had been liberated. They did not start again for some time, when they took the route for their cot, although, surrounded by mountains, they had not seen the country. Of these two, one did not reach its destination till seven days after; the other failed to appear. Neither (it should be said) had been accustomed to be set at liberty at a great distance from its cot. Another experiment consisted in letting off two pigeons (one of which had not been trained for great distances) about 9:30 A.M., at a point 50 feet under the highest point of the Jungfrau, or 13,750 feet above the sea level. They immediately rose, described several large circles, and took their flight down the valley of Lauterbrunnen, in the direction of Schilthorn and Schwalveren. One of these pigeons reached its cot at Thun at three o'clock next day (eight hours after starting). The other did not turn up. The result of these observations is the more interesting, because in several instances pigeons let off from balloons high up in the air have seemed incapable of sustaining themselves, and have fallen to earth like an inert mass.



CHINESE VASE.—*Cloisonné Enamel*.