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ALL ABOUT

FERRETS AND RATS

BY

ADOLPH ISAACSEN,

"SURE POP."

PRICE TWENTY-FIVE CENTS.

ALL ABOUT FERRETS AND RATS.

A COMPLETE HISTORY OF

FERRETS, RATS, ~~AND~~ RAT EXTERMINATION

— FROM —

PERSONAL EXPERIENCES AND STUDY.

— ALSO —

A PRACTICAL HAND-BOOK ON THE FERRET.

BY "SURE POP."

(ADOLPH ISAACSEN.)

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INTRODUCTORY.

IN the following pages we have given a complete review of the ever-important rat exterminating subject, from a practical man's point of view. The essay on the Ferret has been exhaustively treated, is a special feature of the work, and will be found of great value to the rat-ridden part of the community, as well as to the fancier and naturalist. "The Rat" has been handled from a universal point of view, and the book has been prepared from the writer's practical notes during his thirty years' study of Rats and Rat Extermination.

THE FERRET.

I.—WHAT A FERRET IS.

Our dictionaries say that “ferret” as a verb active means to search out carefully. This is certainly an important function of the animal, but, as it belongs to the Musteline or flesh-eating weasel family, it has also inherited these animals’ boldness and savageness, though tempered and exercised in a very useful direction, *i. e.*, of killing off the most bothersome and numerous of our vermin for us. It is rather a well-known family,

the one to which the ferret belongs, including such animals as the sable, which furnishes the highly-prized fur, the skunk, with its not as greatly valued perfume, the ermine, the color of which is likened to the driven snow and whose dress forms the badge of royalty, the weasel, from which artists obtain their finest brushes, the marten, the badger, and the otter. The shape of these animals, the characteristics being strongly marked in the ferret, is long, slender, and serpentine (snake-like and winding), their teeth are very sharp, the muzzle and legs short. Their average food is rats, rabbits, and birds. Members of this class are found in all climates and parts of the earth.

It is necessary to state, primarily, that there is no such thing as a wild ferret; it is domesticated in the same degree as a cat or a dog. The wild animal from which the ferret is bred is the weasel, just as the dog is originally of wolf extraction, and the cat of the same class as the tiger or lion. The ferret is also interbred with the different species of the musteline tribe, such as the mink, marten, polecat, and fitch. These are nevertheless all weasels in the same way that terriers, black and tans, Newfoundlands, and poodles all belong to the family of dogs. The ferret's origin has been traced by some to Spain, by others again to the northwestern part of Africa, and by still different writers as far away from us as Egypt, but it was first used authentically for ratting and rabbiting in Great Britain, where it is most highly prized, its merits understood, and where almost every one is as familiar with it as he is with the nature of his house cat. The public here in America is yet but indifferently acquainted with the ferret. At an exhibition of ferrets made by the writer at Madison

Square Garden there was about one out of every fifteen persons that knew the name of the animal at all, and the ferrets were alternately designated as skunks, weasels, guinea-pigs, raccoons, monkeys, woodchucks, kittens, puppies, squirrels, rabbits, chipmunks, rats (an animal for which they are commonly mistaken), hares, martens, otters, small kangaroos, muskrats, beavers, seals, and, ridiculous as it may seem, small bears. The American race of ferrets has been bred to a high degree of intelligence, as the proper medium of wildness in the hunt and docility to its keeper has been obtained principally through the efforts of the present writer. This, however, has only been brought about after a great deal of close study and experiment in cross breeding, until now the American animal is greatly preferable to its more sluggish and vicious English brother.

II.—CHARACTER AND APPEARANCE.

Every individual ferret has a character and distinct look of its own, although there are some ugly, scarred, and bony specimens with game legs and glass eyes, still the ferret, when in good condition, is a pretty little animal, with soft fur and kittenish ways, and can be handled and fondled after you have become mutually acquainted, the same as a cat. It can never be made as trustworthy as a dog, because it does not possess as much intelligence. The general colors are white, yellow, and a mixture of black, brown, gray, and tan, varied with gray and white patches over and under the neck and body. *The tint runs according to the predominance of either mink, marten, fitch, or polecat blood.* The ferret is essentially a *useful* animal, and

is not valued for its good looks, but the purely colored, pink-eyed, white ferret, with its plump form and beautiful, glossy coat of a creamy shade, does certainly not present an ungainly appearance. The dark ones are a sprightly company, too, with their friendly, sparkling black eyes and social nature. There is no standard size—there are large and small breeds, the age having nothing to do with its inches. Some ferrets never get to be bigger than a size beyond a dock rat, while I have had others as large as a full grown cat. There are ferrets more valuable as hunters than others on account of their wiry forms, their age, experience, and intelligence. I have small, homely ferrets, which persons not understanding ferret peculiarities would pick out as the most miserable and stupid of a lot, but which in reality are choice hunting stock. There is no preference for small or large ferrets, as they are both good for different purposes. Ferrets are cleanly animals both in appearance and in their habits. Their jumping and climbing powers are limited. There is a curious thing about the ferret that reminds us of its kinsmanship with the gentle-tempered skunk, for *when it is teased or aggravated* (showing this also by bristling up the hair of its tail) it emits a pungent odor from a gland it has underneath the tail. This only happens in extreme cases, otherwise it is peaceful enough except toward its natural prey. *Different lots of ferrets, strangers to each other, will not agree, and should not be put together, as there is a risk of a deadly battle.* It is a pleasant enough thing to watch a number of healthy ferrets at their antics. On the writer's breeding grounds, where the pens are always kept neatly painted and the sawdust carefully leveled

on the floor, making it look like a lawn in yellow, they generally huddle up in a snug heap, presenting a confused jumble of heads, tails, blinking eyes, and indistinguishable masses of fur. This is during the daytime, after they have been fed. Toward dusk, or when they are hungry again, they disentangle themselves from the bunch, one by one, and after they have properly yawned and stretched themselves they are very lively. They frisk and gambol about like lambs in a pasture, without the odd, long-legged appearance of the lamb, but they make up for this by humping up their backs like small dromedaries. They get to tumbling over one another in a comic, clown-like way, they run, gallop, trot, and hop, and sit erect on their haunches. This latter action they perform in expectation of a mouse, a special delicacy with them, though but a mouthful, from the keepers leaning over the pens above. Upon the whole they seem to be enjoying life immensely, presenting quite a study of animal contentment and happiness.

III.—RAT HUNTING.

When the word rat is mentioned in connection with the ferret, our pacific scene is changed to one of war and bloodshed. The savage instincts of the animal are then aroused, and the rat itself knows, when it has caught the ferret's scent, that its time has come. There are no two animals more deadly enemies than these, the ferret being constructed in such a way that it is best adapted to hunt the rat in the rat's own haunts. Wherever a rat can go a ferret can go, because the latter's body is as

flexible as rubber, and it can squeeze itself up, draw itself out, and flatten its limbs into a likeness of a New England buckwheat cake, as if there wasn't a bone in its body. The weasels, and nearly all wild animals of this division, after killing the prey suck the blood, eat the brain, leave the rest of the body untouched, and then proceed to annihilate the next victim, repeating the operation. Here is where the difference between the ferret and the other animals of its tribe comes in, for it does not content itself with brain food and such ethereal substances, but devours the whole carcass with a fine relish, not even leaving the tail or the skin. It bolts the bones and everything else thereto appertaining. It is rather an appalling experience for the first time to hear the hungry ferret's teeth go crunch, crunch, as they meet in the neck of some fat rodent. This sound bears a resemblance to a cowboy chewing radishes. A very hungry ferret would commence to devour the rat before it had thoroughly made its exit into the sweet subsequently. In using ferrets to clear a house of rats, they should be allowed to nose through the building during the night with the same freedom accorded a domestic animal. During the day they are kept in the pen. The reason a ferret should be hunted with in the night is that it sees better then, and that it is instinctively better fitted for hunting. The rats also become more venturesome at this time. When the ferrets are to be hunted with, feed them slightly, as feeding blunts their hunting capabilities and makes them worthless. After a good feed a ferret will sleep harder than any other domestic animal. Sometimes you will find a ferret so hard asleep that you can take him up, shake him,

and then put him down again without waking him. If you are inexperienced in the ways of the ferret, you will imagine you have a corpse on your hands. But the corpse will in a short time open its eyes, shake itself, wag its tail, and then trot around with the others. When a ferret sleeps he will let his companions tramp all over his head and body without allowing himself to be disturbed in the least. When they have been fed too well they will sleep and be of no further use. If these over-fed ferrets are in a pen and you put rats in for them to kill, they will not wake up even if the rats crawl all over them, although the rodents are scared into fits and are trying to get away with all their might and main. A hungry ferret around a house will go scenting around as hunting dogs do, to discover any trace or hiding-place of his natural prey. This in itself is enough to drive all the rats to Jericho and make them stay there as long as the ferrets are kept around, for the rodents have an acute bodily fear of these prowling detectives. A ferret's being bitten by a rat happens only in extreme cases, but sometimes in cellars and other places that are swarming with rats, ferrets that have first been put in have to contend with great odds, and come out with some bruises. *Therefore if even a good, old hunting ferret should be bitten by a rat, he should not be used until the wound is perfectly healed again, even if it should take two or three weeks.* The ferret is very peculiar in this respect, and if this rule is not observed he may be spoiled as a hunter forever afterwards. The ferrets hunt downward, and if put on the upper or top floors in the evening they will turn up in the morning down in the cellar driving the

rats before them. They should be kept in a dry place, and they rapidly get to know their pens, returning to them and waiting to be put in when through hunting. With a moderate amount of attention they will thrive and prosper in their work of extermination.

IV.—FOOD.

Ferrets should always be anxious for their meals. Rats are good ferret food; but never feed dead rats, as you run the risk of the rats having been previously poisoned, this also transmitting itself to the ferrets. If there are plenty of rats in the place the ferrets will be able to do their own choice marketing; otherwise, when not hunting, feed them either crackers and milk or bread and milk, with a pan of water always at hand in warm weather. Raw meat can be given them two or three times a week, but never feed liver or salt meat. When milk is not handy use water instead. For a pair of ferrets use a shallow pan for their food, the pan to be as large as an ordinary saucer. Once a day is enough to feed them. When you wish to hunt your ferrets at night feed them in the morning, and they will be in the proper hunting condition when night comes. Particular relishes are chicken heads, duck heads, rabbit heads, and sparrows. Dilute the milk occasionally, and change off with the bread or crackers soaked in water instead of milk. Besides this you can feed your ferrets the same as you do your cat, with the exception above mentioned. Ferrets enjoy their meals heartily—they grunt and smack their lips with much satisfaction when fed; particularly so when feasting off a rat, as there is nothing they enjoy more than a good, big, healthy one—turning the rodent

inside out and ploughing out the interior with great exactness.

V.—FERRET HOUSES.

Ferrets must have plenty of good air, as they cannot stand being boxed up closely for a great length of time without getting diseased. I have, since the first edition of this book was printed, invented a model ferret-cage, in which I keep my stock in perfect health and in prime condition. I now make a specialty of manufacturing this contrivance, and have dubbed it "The Sure Pop Ferret Cage." It is of a solid build, but of a convenient size for expressage to any point. It is divided into two sections: (A) for sleeping and (B) for exercise and feeding; connected by an aperture just big enough for a ferret to get through. A (sleeping-room) is one-fourth the size of B and is kept dark, except that it has two small wire windows at each side which furnish perfect ventilation. B (for exercise and feeding) is constructed of wire on the top and the sides around a solid frame; the same flooring serving the two apartments. There is a wide door on the end of the larger section and also one on the roof of the smaller, so that the ferrets can be conveniently taken out or handled and the cage cleaned at any time. In winter it is best to keep the smaller division full of hay; it keeps the ferrets warm and clean. In the larger part you can use sawdust or earth; and another big advantage I wish to call attention to is the peculiar manner in which the connecting aperture is placed, so that the ferrets cannot carry out the hay, but can conveniently get from one apartment to the other. The price at which I am

now disposing of these cages (\$5.00) is merely nominal, but I prefer to have my stock housed in a comfortable and correct manner, as the ferrets will then do better work and get attached to their new master a great deal quicker than if their quarters were neglected. The above cage is, as I have said, of a very convenient size, and can be stored in the cellar of a house—if the cellar is dry—or can be placed in a barn or stable, or, if needs be, can be put into service as an independent out-of-door house. For the latter use the larger apartment should be boarded up, so that the ferrets are not completely exposed to the rough weather; it should also be kept three or four inches above the ground. If sawdust is used, it should be cleaned out at least every other day and replaced with a fresh supply. The hay need not be changed for one week.

VI.—DISEASES.

On the topic of ferret diseases, all the advice I can give is of a preventive, rather than of a curative, nature. My experience has been that, when a ferret is sick, it is the wisest policy to kill it immediately, as in all my practice I have never cured a sick ferret yet. Of course there are numerous remedies advocated by persons who claim to “know it all”; but experiment with these is simply a waste of time and material. The common diseases of ferrets are foot-rot, distemper, diphtheria, and influenza. Foot-rot is caused by dirt and neglect, and is the most common, dangerous, and devastating. It makes the feet swell out to twice their natural size, and become spongy; the nose and snout get dirty; the eyes commence to run,

become perceptibly weaker, and then close. The tail also changes to a sandy and gravelly texture. Distemper is only a case of foot-rot aggravated. In influenza the nose runs violently, and there is the same affection of the eyes, accompanied by incessant sneezing. Diphtheria is a throat trouble, indicated by swelling of the neck, much heavy coughing, and nearly the same other accompaniments as the above diseases. To prevent disease, cleanliness and moderation are the simple antidotes: this is not such a hard thing to accomplish, as the ferret is a strong animal for its size, and very cleanly itself. Ferrets are sometimes run down by overwork in hunting, and get to be dull and sluggish; but they will soon regain their vigor, by letting them rest for awhile, and giving them plenty of food. Pure air, fresh, raw, bloody meat, and good milk, will soon bring the ferrets back to their natural state inside of a week.

Ferrets are sometimes troubled with fleas of a large size, that use the animals up greatly if they are not checked immediately. A little Sure Pop Insect Powder rubbed in dry with the hand will settle the insects effectively in a very short time.

VII.—HARDINESS.

There are numerous remarkable examples of ferret toughness on record. Not long since, the following came under my notice: A couple of ferrets were used in a warehouse, and one of them, a handsome, dark-coated, mink-bred animal, accidentally fell through a hatchway from the fourth story. He was brought to me in a horrible condition, the hinder part of the

body being entirely smashed out of shape, and completely paralyzed. The poor brute was forced to drag along its useless trunk with the help of its forefeet only. I thought myself the animal was assuredly done for; but in a fortnight it had quite recovered the use of its limbs, which also assumed their natural form and function. It was again enabled to hop about as well as the rest; in fact, no trace of its former complete demolition remained. Another noteworthy example was this: A friend of mine, M—— was out rabbit-hunting with a companion carrying his ferret, which had been muzzled, in his pocket, a common way of transporting it. After he had bagged half a dozen rabbits in one place, he secured his ferret again, and went on walking some distance through a snowed-over part of the woods, chatting with his friend. He suddenly felt in his pocket, and found his ferret had got away. They retraced their steps, carefully searching for two or three hours high and low, but without success. M—— went home, satisfied his ferret was lost. Eight days afterwards, coming over the same ground, he saw a shadowy, thin spot of dirty fur under a ridge, which, after he had more closely examined, turned out to be the long-lost animal. It was completely exhausted and reduced to a skeleton, but still showed some signs of life. It had probably crawled in under some small opening in a ridge at the time of its being dropped, and so had escaped M——'s attention. As he found his ferret with the muzzle still on, it could not have procured either food or drink. The poor brute must have suffered agonies, showing *what horrible cruelty the practice of muzzling is*. M—— took his ferret

home, fed it well, and inside of a month it was entirely restored, and just as good a ferret, in every respect, as ever. If ferrets are together, and are kept strictly without food for a length of time, they will devour one another quite readily, in lieu of better fodder.

VIII.—BREEDING AND TRAINING.

Ferrets are rather difficult animals to raise in numbers—it requires a large amount of patience, great care, and scrupulous neatness, although when full grown they are very hardy. The writer's ferret breeding grounds consist of special farms, on which are erected numbers of small barn-like structures, each furnished inside with a dozen pens, and an aisle running through the middle. Every pen is as large as a horse's stall, the boarding and other accessories are kept clean by vigorous scrubbing, the sawdust on the floor is changed once a day, and the pens and the ferrets are otherwise attended by experienced ferret men. Here the ferrets are taught to do their work of killing and hunting by practical experiment on live rats. Although it is in the nature of ferrets to hunt and kill rats, the same as it is for a bird to fly, yet we find a little extra course of training is necessary in both cases.

It will not do to hunt with ferrets until they are at least seven months old. Ferrets breed but once a year, and have from four to nine at a litter on the average—it is very rarely they have two litters a year. They are trained to the whistle by feeding them every time this instrument is used, so that after

awhile they promptly respond. The ferret is ruled through his stomach. The time of the ferret's getting in heat is in March, nine weeks after which they breed. The male invariably takes hold of the female as if he were going to strangle her. The young are born without hair, and must, therefore, be kept warm. They have their eyes open in thirty days, and should be fed on as much milk as they want.* The male should be removed from the female before the littering, the symptoms of which are exactly like a cat or a dog, or else he will destroy the entire brood. Care should be taken to have the female well supplied with food during the period of copulation, or else she may casually munch up the young herself, and the writer has lost many a pretty litter by this little habit of the unnatural mother. As in crops, there are years for raising ferrets which are more fortunate than others, some seasons having a fatal effect on the young ones.

IX.—STRENGTH AND BITE.

The great strength of the ferret is in the teeth, neck, and forefeet. One ferret can hold up eight times its own weight with its teeth. Twenty or thirty ferrets when hungry will fasten their teeth in a piece of meat and can be picked up in this way and swung around without ever causing them to think of letting go. They will hang to an object which they have been provoked against with a persistence which would make a Bill Sykes bull-dog blush with shame. The only way to loosen their hold is to grasp them firmly

* They ought not to be handled before they are one month old.

around the neck with the pressure on the skull, and to shove them *towards* the object, not *from* it, for if you try the latter way you can pull for a day and a night without any perceptible result on the ferret.

The bite of a ferret is not dangerous; they will only bite a human being out of mistake, because they don't see well in the daytime. They imagine you are kindly holding down some bit of meat for them to chew at, and they don't bite because they are at all viciously inclined towards you. Of course you don't want to tease, annoy, or step on them, or you may find them loaded. If a ferret bites you, he will let go immediately, and you and the ferret both will quickly realize the mistake.

X.—HANDLING.

Ferrets should at first be handled by the back of the neck. The tail is the natural handle for lifting up a ferret, in the same degree that the ears are of a rabbit. The ferret should only be *lifted* by the tail and should be handled by the back of the neck. After a wild ferret has been handled this way for some time he will get to be very tame and you can handle him in any way. He will get so that he will hop up in his pen at your approach and want you to play with and caress him, although it is never advisable to give him your perfect confidence, such as putting him to your face, etc.

XI.—WITH CATS AND DOGS.

Ferrets are easily kept with cats and dogs, and after a little training and discipline they will hunt together, the ferret being generally used to drive out the rats

from the holes in a barn, etc., and the dog doing the killing. When they are first introduced to each other there will be a little sparring, *and the dog's master must strictly forbid his dog to touch the ferret or else the dog may kill it at the first wrestle*, but after the novelty of each other's appearance has worn off they will lie down together in one corner and be the best of friends, as I have witnessed scores of times. The writer has cats and ferrets on his farm that regularly feed and play together. Ferrets should not be kept in a place with sick dogs or cats, as the disease will surely be transmitted to them.

XII.—THE FERRET'S ADVANTAGES AS A RAT EXTERMINATOR.

Ferrets have been brought forward, chiefly by the labors of the present writer, to be regarded within the last few years as domestic animals. There is certainly, yet, a great degree of prejudice against the ferret—a natural result of ignorance of its ways; but we firmly believe that the more it comes in contact with man, and is bred in captivity, the more readily it will be put by him in the division of common domestic animals, and he will, furthermore, find it his best remedy in rat extermination, making the latter worthies as scarce as the ordinary rat has made its black-complexioned cousin.

For this latter purpose the ferret's most apparent advantages are as follows :

First. There is nothing a rat is more afraid of, by nature, than a ferret, so that the rats are driven off by acute bodily fear.

Second. The body of the ferret, and its small head also, is remarkably flexible, thus enabling it to get into and drive out the vermin from their holes and breeding-places.

Third. When through hunting they do not stray off, but return to their pens, and wait there till they are put in.

Fourth. They devour the entire carcass of the rat, after killing it, and do not leave the slightest trace of it around.

Fifth. The ferrets can be trained to obey the whistle somewhat like a dog, and, by attaching a bell to their necks, they can always be traced to whatever part of the building they may stray.

Sixth. After they get acquainted, and have been handled for some time, they become affectionate pets, and can be fondled and caressed freely.

Seventh. They are very cleanly, peaceful, and non-destructive in other ways.

XIII.—MISCELLANEOUS.

Ferrets are extensively used to drive out rabbits from their holes, although the laws are very stringent against this sport. For this purpose they are generally muzzled, which is a cruel and unnecessary practice. All that is required of the ferret is to drive and scare out—the rabbit being then caught or shot. A bell around the ferret's neck will scare off the rabbit immediately, because the ferret is slow, and the rabbit will hear him coming from a distance. A

properly trained and handled ferret needs no harness of any kind. Never muzzle a ferret for rats, as he may be savagely attacked where the rats are thick, and then be unable to defend himself. Ferrets are muzzled by tying their jaws, so that they can not bite, with waxed cords, etc. There are also muzzles like those made for dogs, only fitted to the ferret's size.

A writer in a certain New York paper has put the ferrets to a peculiar use, on account of their flexible bodies. The following is quoted from a supposititious interview with the present writer: "A gentleman purchased a ferret, and became greatly attached to it. To show me how well he had trained him since the purchase, he called Pet (as he had dubbed him) to his side, and, dropping his pencil behind a large immovable desk, where it would be almost impossible to get it again, he merely said, "Get it!" In an instant the ferret was off, and soon back again with the pencil in his mouth. The gentleman said that he had been of great service to him in that way, and he recommended them to all old ladies who are in the habit of losing thimbles and spectacles in out-of-the-way nooks and holes." We can not help remarking, that this certainly imputes a trifle too much intelligence to the animal.

There seems to be a curious superstition regarding the ferret amongst the lower classes of people from England, Ireland, and Scotland, to the effect that the ferret possesses healing properties. I have numbers of people come to me with pans of milk, part of which they want the ferrets to lap up, reserving the other half for medicine. They firmly believe this an infallible cure for whooping-cough in children. On some days so many people come for this purpose, with milk

in all sorts of vessels, that the ferrets would certainly have burst their buttons, if they had any, in trying to do justice to all of it. The people wait their turn patiently, and come any day I appoint to have the ferrets drink some of the milk. I have heard many miraculous accounts from them of Mrs. So-and-so's baby who was down "that sick" with the whooping-cough, and the "doctors givin' her up, and she comin' to directly by a drop o' the milk the blessed little craythurs had been lappin' at; and it's the only rale rimedy yer can put intire faith in."

The following is an extract from a Kansas newspaper: "An old Englishman is now traveling through the country with two pair of ferrets, with which he is making money by killing prairie-dogs. He has his pets in a wire cage, and, going to a ranch where there are indications of prairie-dogs, he offers to clean out the dog-town for 1 cent per dog. The price appears so very small, that the ranchman does not hesitate to accept the offer. One ferret will clean out from twenty to fifty dogs before he tires out, or, rather, before he gets so full of blood of his victims that he can't work well. When one is tired out, a fresh one is put into service; and so on until the town is rid of dogs."

THE RAT.

I:—THE RAT FAMILY AND ITS VARIETIES.

The cynical, and, as he is generally acknowledged, villainous old rat, is a near kinsman of as innocent and peaceful a community as the squirrels, rabbits, and hares are, at least the natural histories unite in telling us that they all belong to the Rodentia or gnawing animal family. The three great subdivisions of rat are the Black, Brown and Water varieties. With the latter we have nothing to do, as it is an innocent field animal that never goes near man or his works, and is not properly one of the “whiskered vermin race” or rat breed. The dock rats belong to the Brown brigade.

II.—RAT HISTORY.

Regarding the rat's history and antecedents we are informed in some books on this subject, very positively, that the common or Brown rat was brought from Norway, while other naturalists insist with a pertinacity peculiar to the tribe that the animal originally comes from Persia and India. We feel justified in believing with the majority that this kind of vermin has its origin in Asia, that venerable continent of cholera, Heathen-Chinee, and Old Testament. But again, whatsoever the different opinions may be, it is certainly found that this species of rodent is distributed over every country on the face of the earth in a very near equal way, because every ship that leaves port takes in

its cargo of rats just as regularly as it does its cargo of provisions and merchandise, and thus it can be readily seen how this delicate tender blossom is carefully though unwittingly transplanted. In this way the Brown rat, which is now the strongly predominant rat party, was brought to New York and America in 1775 from England, which would doubtless give great pleasure to that part of the population with an Anglo-maniac tendency and would probably reconcile them much more to this sect of vermin. In Europe the latter made their appearance in 1730, and then spread out to every inhabitable country. "For men may come and men may go, but I go on forever" would at the first glance seem to be the case with the rat tribe as well as with the musical brooklet of Tennyson, yet the history of the rat nations is like unto the history of man—one clan waging a long and bitter war of conquest and extermination against the other until hardly any trace of the conquered but once mighty and ambitious race remains. The Black or Indigenous rat had things all its own way in North America as well as through the rest of the civilized earth, before the Brown species' sweeping invasion, the former having been entirely subdued and are now very scarce. It was easy enough for the brown rats to do this, because they were bigger, bolder, and more ferocious. Their multiplying powers, too, were sixteen times greater than the vanquished nation whose origin is shrouded in the darkest and most complete mystery.

The writer has on several occasions observed a dark colored rat on vessels coming from Brazil and other States of South and Central America that was unlike any specimen of this animal he had remembered ever

seeing before. It was of a deep bluish tint, had an abnormally long tail, very large ears, and sharp, fiery, bead-like eyes, that looked in the dark like small electric lamps. Its agility and desperate nervousness was something marvelous, and its bump of destructiveness was largely developed also. This is probably a stray representative from some struggling colony of the dethroned black rat nation. Small numbers of them are occasionally brought to our own shores by these vessels. The rats generally escape from the ships, whereupon, as soon as the vessel is about to sail away again, their places are promptly filled by their brown brethren. Then the desolate black rats stray to the sewers of the city, where they are speedily overwhelmed and dispatched by members of the other faction, their inveterate foes and conquerors.

III.—THE KING'S OWN RAT CATCHER.

Although this black rat is inferior to the brown tribe in strength, size, and breeding powers, yet it must have been formidable also, for it was formerly thought necessary in England to institute the queer court position of rat catcher to the King. This was probably the case in other countries, too, but no records of it have been kept. According to an old historian this English rat catcher was a very dignified and mysterious individual, generally with gypsy blood in his veins, as it was thought necessary for him to know something of the Dark Science to properly perform his duties. He was attired in a rich manner, wearing a scarlet coat embroidered with yellow worsted on which were designed figures of rats and mice destroy-

ing wheatsheaves. He was looked at with much awe by the populace, as he turned out with a stately tread and great pomp, carrying a heavy staff with the insignia of his exalted office, whenever he took part in the royal pageants. This he did regularly, and it is also stated that he had an attendant, who never took part in the processions but who did the main part of the work, always with as much mystery as possible, upon the munificent stipend of tuppence a month, while the gentleman in the red coat superintended the job and received the glory—differing radically in this respect from the rat catchers of the present day.

IV.—RAT SOCIETY, CANNIBALISM, AND FRIENDSHIP.

Animals of nearly all kinds are fond of each other's society, and in their natural wild state are always found in herds. The city rats live in tribes or colonies of from twenty-five to sixty individuals, in the winter more and in the summer less. In the cold weather, when they are idle or at rest, they lie in one heap for the purpose of mutually heating each other. They change from the bottom to the top and alternate their positions very frequently, so as to give each one an opportunity to enjoy the warmer place at the bottom. The warmer the locality the less individuals there are in a heap. These rats live peacefully enough amongst themselves when they have enough to eat, but the minute they are apprised of a slightly vacant feeling in the region of the stomach they become the most savage of animals.

The mother rat is very careful and fussy about her young until they get to a certain age. When they

have passed this period, however, and the mother should, on some bright day, feel a trifle hungry, she would as readily devour her offspring as the children would make a meal of her, thus returning the compliment neatly. Individual cases of this kind occur also amongst the canine family, where dog-bitches have dined royally on a majority of their newly born pups. This tends to show that man is not the only intelligent animal who occasionally uses his fellow's carcass for fodder. Cannibalism, in the rat's case, takes place generally when they are unable to get any other diet, but then they will devour one another with gusto, skin, tail, bones, feathers, and all; the stronger killing the weaker and sucking the blood first. Hot blood is one of their greatest delicacies. The rats are born blind and naked, and their bodies are at this time of their life in a wobbly and unformed state. In this condition they would probably not be looked on by outsiders as things of beauty or delicate morsels, yet they are eagerly sought after by the old male rat to furnish him with his Sunday dinner dessert. The male pigs, cats, ferrets, and rabbits also indulge in the same pastime. This is made still more of a highly prized food for the old man rat by its rarity, as the mother will fight to protect her young with the boldness and savageness of a lioness defending her cubs. She will even go to the pathetic extent of chewing up her young ones herself rather than let them fall into the hands of her oppressor. The rats have an arrangement amongst them similar to the old Greek health law of killing off all sickly infants, that is, they eat their dead and infirm. This accounts for the fact that rats are never found at large sick, diseased, or disabled.

Although, as a rule, it isn't considered the correct thing with us to dine or breakfast from our departed fathers-in-law or uncles, yet in the present case, peculiar as it may seem, it is the only admirable trait about the rat. It forms a safeguard to man against their increase, yet we must add, in a hurry, that the check put upon their growth by their cannibalism is lamentably small when compared to their enormous multiplying powers, which surpass those of any other animal.

The writer had a curious experience in regard to the rat's sociability and companionship. He had once confined in a cage a company of twelve big slaughter-house rats and happened to neglect feeding them one evening. The next morning he was rather astonished to find a well polished backbone, a stubby remnant of tail, and only eleven other rats, all huddled up together compactly, in the congregation. He then gave them some food to stop them from further feeding on each other, but they rudely refused this, and he was again surprised to see ten of the number make a combined attack, that looked as if agreed upon, upon one unfortunate but especially large sized rat. The latter tried desperately enough to hold his own against such fearful odds, with much horrible squealing and screaming among them and a great deal of severe scratching, dashing, and tumbling against the tin-lined sides and the wire roofing of the cage. In a few seconds they were ranged all around in a circle feeding ravenously on the remains of the brave but ill-fated warrior. The writer has noticed, in numerous instances where numbers of rats were kept together in a cage, that they would on some occasions, just as the humor seemed to strike them, prefer their relatives and brethren as food to

anything else. It did not matter, either, what other form of diet or delicacy had been set before them.

V.—MULTIPLYING POWERS.

Great quantities of rats are trapped and poisoned and hunted down by all animals larger than themselves; they are driven out of their homes, and systematically destroyed by paid vermin-destroyers; still all this seems to make but very slight impression on their numbers as they constantly pop up serenely from below just as if "Sure Pop" and rat-traps had only a mythic existence in fairy tales. They multiply prodigiously, the female breeding on the average about eight times a year, and having as many as fourteen at a litter, though in some instances this record has been badly beaten. A writer on this subject calculates that from a single pair of New York rats, living in moderately good circumstances, there will spring in three years' time a snug, happy little family of 650,000 rodents, including mother, father, children, grandchildren, great-grandchildren, etc., and making due allowance for emergencies, accidents, and for a few hundred of them having been overpowered and used for food by the rest of this most worshipful company. He allows an average of eight young at a litter, half male and half female, the young ones having a litter at six months old. One cause of their being so prolific is that they flourish and breed as well on an abundance of swill, refuse, and garbage, as if they were carefully and tenderly fed three times a day.

VI.—THE RAT'S UNABRIDGED BILL OF FARE.

Next to the ostrich, the rat possesses the most capacious and accommodating kind of stomach. He will swallow anything, digestible or otherwise, although he can appreciate good things with much intelligence, when he comes across them. His bill of fare ranges all the way up from tallow-candles and shingles to roast-partridge and old boots. Rats are broadly omnivorous, and their food varies widely with their situation. They will eat soap, from the harsh and strong smelling washerwoman's kind to the richly perfumed and tinted toilet variety. With a vast and admirable toleration, they will feed upon bacon, sponges, ham, roots, flour, pork, roast-fowl, from boarding-house chicken to the microscopic quail; they will consume confectionery, potatoes, tomatoes, turnips, other vegetables, fruit of every description, from huckleberries to watermelons, raw, boiled, broiled, or fried fish, suet, eggs, bread, mutton, cheese, and butter. Also raw, cooked, boiled, broiled, fried, smoked, or roast-beef, and they swallow with keen relish wines of all brands and vintages, beer, whisky, gin, and brandy, and evince a loving fondness for all grades of oil, from the dirtiest, coarsest whale's blubber to the finest olive. The rat is verily a most cosmopolitan glutton, and enjoys the favorite dishes of the various nations with much the same hearty appreciation throughout, hugely delighting himself with frog's hind-legs in France, pickled herrings in Holland, potatoes roasted on the hearth in Ireland, pumpernickel and sourkrout in Germany, anise-seed, garlic, and olla podrida in Spain, birds'-nest, skarks' fins, and

meat furnished by the rat's own brethren in China, caviare and candles with the Russians, roast-beef and ale in England, and pork-and-beans and peanuts with the people of a certain division of North America.

Drawing the line at a particular point in the rats' endeavors to obtain "belly timber," as Sancho puts it, is an obsolete custom with them, for they devour putrid carrion, and human flesh, too, comes within this category, a further account of which will be found in the course of the next chapter.

VII.—FEROCITY.

The rat is dangerously ferocious when aroused, and is capable of being wrought up to a pitch of white heat fury. If he should be caught, his tail cut, his hair burnt, or if he should be wounded in any other way, but not sufficiently to weaken his system or momentary capacity, and he is then let loose, he will, through sheer madness and pure "cussedness," hunt up, fight, and overpower his brethren individually, or else put them to flight in a body, without much ado. In fact, when he is worked up to this state, he wouldn't hesitate for a moment to attack an entire army of rats, or of other far bigger and more terrible objects. In many cases like this, rats have often obligingly rid premises of their own kind. If the tortured or maimed rat is in a weak condition afterwards, he will be promptly overpowered by the other members of the rat community upon general principles.

We are often regaled in the newspapers with "brutally frank" accounts of people leaving their

babies alone at home, and, upon returning, finding them frightfully lacerated by rats, slowly and reluctantly escaping from the scene. In like manner, they have become bold enough to attack solitary invalids in houses, who had work enough to defend themselves from, and to drive off, these ferocious little beasts, driven on by hunger like the true wolves of the wilderness.

Living or dead, man is bound to furnish food for the rat; and in church-yards, where, ghoulish-like, they choose the night as their time of appearing, they demolish the skeletons, littering the ground with remnants of the white, shining bones.

VIII.—RATS IN BREWERIES, SLAUGHTER-HOUSES, MARKETS, STABLES, AND BARN-YARDS.

The writer, in the course of his many rat-hunting expeditions, has had occasion to observe the rats in the lower cellars of many large New York breweries, where beer was about all they could get to live on. The sage old rodents, I observed, that had become accustomed to this diet—and had noted scientifically its queer effects in large doses on the rat system—indulged in a moderate way, and became aged, good-natured, and fat, like some jovial, bald-headed old merchant of the human type. The young rats, however, that had been recruited from the neighboring houses, would proceed immediately to paint a limited part of the town quite crimson with much hilarity and quantities of beer, after which they could be killed or caught without much bother, lying around

through the passage-ways in a beastly intoxicated state. Here they lay, squealing faintly, and without concern, on their backs. We may find in this, if we care to look for it, a really valuable temperance lesson; for, when the rodents imbibed with moderation, they were of a strong and healthy race, and greatly looked up to in the gnawing community; but, when they quaffed too heavily, they became poets, and cared not for the affairs of this small earth, whereupon they were ignobly killed with a club by some base son of man. In slaughter-houses, they become so unconscious after having gorged themselves with a hearty dinner of hot blood and other warm offal, that hundreds of them could be picked up and massacred with but very faint resistance on the otherwise cautious rat's part.

In old markets, rats yet do valuable service as sanitary inspectors, by demolishing the amount of refuse and garbage; but in other channels they are the very demons of destruction. They are especially fond of cheese; and in the cheese-dealers' stalls they go at their work of procuring this in a highly artistic way. They drill holes through the flooring beneath the largest cheeses, and then work their way up and eat into them, consuming pounds upon pounds in a single night. The men sometimes find a large cheese with the interior scooped entirely out, leaving the rind, in hollow mockery, simply an empty, worthless shell. In the butchers' shops, the rats are connoisseurs in the quality of meat, always seeking out the prime portions of the beef in preference to any others.

Around barn-yards they destroy the grain, oats,

and every species of fowl, from the smallest to the largest specimen. In going at their work of destruction, they spring upon the neck of the victims, and pierce and bite it through with their teeth. They then suck the blood first, or else eat into the flesh as they would into a cheese, often contenting themselves with the blood and leaving the carcass. In stables the harness and the axle grease, even, suffice to make a square meal for them in default of better fodder; they also make the horses frantic by fiendishly gnawing at their hoofs.

IX.—RATS AS WINE DRINKERS.

In a neat and cleverly written little book on Spain, it is observed that “in the wine cellars the bungs in the heads of the butts containing sweet wines had little square pieces of tin nailed over them. This was to protect them from the rats who otherwise get upon the edge of the butt, and lick the sweet wine which oozes through, then begin to nibble the bung, and go on, if they are let alone, till out rushes the wine in a stream.” The effects of the rats’ ingenuity seems to bear rather a kind intention toward his two-legged brother, described in the following: “This happened not long ago to a large *tonel* of the finest Pedro Jimenez, which was stored with others in the ground-floor of a house, the owner of which was away in Seville, with the key, which he would trust to no one, in his pocket. One morning out came the bung, long nibbled by rats, and about three hundred gallons of the wine ran out into the gutter. It was a queer sight, people rushing to dip it up with any vessel that came to hand,

some of them presently using mops, and the small boys, who had found it was sweet, and lapped up as much as they could get at, lying around the street in various stages of intoxication," after the manner of our frisky friends, the joyous rats of the brewery cellars.

X.—DESTRUCTIVENESS.

The rat's bite, and especially that of old rats, is very poisonous, and its teeth are finely adapted for severe, quick, sharp, and deep cutting. It forms an urgent natural necessity for them, owing to the peculiar structure and growth of their teeth, to keep them incessantly working. The idea never comes to the rats of a possible breaking off of their tusks in attacking such flexible objects as bricks or lead, and the writer has seen cases in which the rats cheerfully went to work gnawing off corners of bricks and granite, in a persistent manner, so that they could make an opening large enough for their admission into a house. Nothing is exempt from their merciless teeth. They mutilate the woodwork on the valuable drawing-room chair just as readily as they would the dingiest, most plebeian sort of washtub, and they make sad havoc of upholstery of all kinds. They seem to have an especially lasting grudge against the transmission of knowledge, for books are gnawed and mutilated by them in immense quantities. They gnaw paper, from legal documents of the highest value (and many an important writing has been hopelessly destroyed by their agency), to the most worthless treatise on "Four-Fingered Mike ; or, The Terror of Hoboken." Our clothing, shoes, hat-gear, etc., is turned out by the rats

in a pitifully dilapidated condition. They also eat into lead pipes for the purpose of obtaining water, which it is hard for them to do without, although we have found that they can be without food for a much greater length of time. When the rats are pressed for drink on board ship, they lay low in the day-time, but in the evening they stealthily come out on the deck from the hold, in a long row, single file, in order to sip the moisture from the rigging.

By examining the Fire Marshal's Report of New York City from 1868 to 1882, we learn that rats have been the cause of 79 fires during 12 years, making an average of five fires a year. This is on account of the rats' strong propensity for nibbling matches. In the same report is a warning against the loose and careless manner in which matches are left in pantries and closets infested by rats and mice with a fondness for this kind of diet. The great attraction for the rodents in the matches is the phosphorus, which these useful articles contain in abundance, and which the rats are able to scent out from a great distance.

XI.—RATS AS FOOD.

If you were lunching on something similar in taste to roast partridge, and some one told you, after you had finished, that it was only domestic house rat, your interior machinery would probably be disarranged—to such an extent is the bare mention of the word rat repugnant to our senses and stomachs.

In the course of an experiment, the writer has cooked and boiled rats, and has found that their meat is of a

very tender quality, and of a white, inviting appearance, withal, although he never went the length of partaking of it. Our objection to the rat's serving as food is too deeply rooted and profound to be removed, although there are a great many animals whose flesh forms our staple food that have habits much dirtier, and who do not nearly live upon as cleanly a diet (and this is a broad statement) as our despised house rat. From this eulogium we gently but firmly exclude the rat gentry of the sewers. We must give the Chinese credit for having overcome the effete European prejudice against the rat as food. Seemingly, it is the most highly prized dish that the sons of leprosy have in their bill of fare. The crews of the American and English vessels lying in Canton harbor used to amuse themselves greatly in catching a rat, and then holding the kicking animal by the tail so that the Celestials in the junks alongside could get a good view of it. The Mongolians would then get very much excited, utter exclamations of a gobbling, clucking sound, and as soon as the spluttering, frightened rat was flung from the ship an uproarious scramble followed, that made them look like so many monkeys quarreling over a cocoanut.

A writer tell us, in a well-written magazine article, that he has lived fifteen years in China, and has had "experience at public banquets, social dinners, and ordinary meals, in company with all classes of people, but was exceedingly surprised at never having seen cat, dog, or rat served up in any form whatsoever." We are sorry the gentleman neglects to state *whether he'd know the difference*. The odds are twenty to one that he wouldn't; because, as he knows himself,

the Chinese are excellent cooks, and can prepare a good meal from what in other countries would be thought offal. He makes the admission, however, that "there are some peculiar people in China, as well as elsewhere—credulous and superstitious—some of whom believe that the flesh of dogs, cats, and rats, possesses medicinal properties. For instance, some silly women believe that the flesh of rats restores the hair; some believe that dog meat and cat meat renews the blood, and quacks often prescribe it. What the Chinese really do eat does not vary much from that found on American tables; but there are certain dishes not on our programmes that are considered delicacies by everybody—such as edible bird's-nests and sharks' fins." To this we can add conscientiously, and upon weighty private authority—fried split rat, stewed dog, and curried cat with rice. In this place it would be appropriate of us to say something of the peculiarities of Chinese food—of the way the dogs and cats are carefully bred for the palates of the Chinese epicures; how these former animals are invitingly exposed for sale in the market-places; and we would willingly describe the methods of the dog and cat breeders, and the manner of curing and cooking the rats—but want of space forbids. We will merely state that there are many cases in which rats were eaten much nearer home than China; but, as the persons undertaking the experiment were slowly starving to death, and would have quickly eaten each other rather than accept the jolly alternative of dying by hunger, these instances are not of a remarkable nature, and are consequently unworthy of note in the present annals.

XII.—RAT NESTS.

Rats are impartial in their building sites—they have contentedly built their nests in the wretched and filthy peasant's hovel and in the most palatial and luxurious residences of kings, and a human habitation must indeed be in the extreme of squalor, dirt and decay where they are not found sprawling. Shakespeare pithily expresses this in the "Tempest:"

"In few they hurried us aboard a bark,
Bore us some leagues to sea, where they prepar'd
A rotten carcass of a boat, not rigg'd,
Nor tackle, sail nor mast—the *very rats*
Instinctively had quit it."

The rat living in a house prefers warm, soft quarters, and invariably gets within comfortable distances of stoves, ranges, heaters, steam-pipes, etc. This is a very dangerous habit, because his nest is always constructed of inflammable materials. At times he also lugs matches into it, and then if the steam-pipes should become overheated, the matches blaze up and spread the flames. We have read in the newspapers of a great many fires afterwards found to have been caused in this way. The rat's nest is made of black and colored silk, of linen, woolen and cotton materials, bits of canvas, dirty rags, fur, silk stockings, and antique lace of much value jumbled together with string and crumpled paper. In one instance we knew of a rat to make use of a building material more out of the ordinary run than these, as it consisted simply of fifteen hundred dollars in greenbacks that had been put under the carpet of a room for safe keeping, and which was afterwards found in mutilated fragments, thatched together, forming this queer old

mercenary rat's abode. The rat uses his nest too as a storehouse, and here he lays by quantities of edibles for a rainy day. The writer came across a nest, once upon a time, the sole building materials of which were those undergarments, both masculine and feminine, fashioned so slenderly, but which we dare not mention. This nest contained a peck or so of beans, though in the house where it was built beans had not been stored nor used, the writer found out, for at least three months. Out of doors or in fields the rats' nests are built of hay, leaves, shavings, and wool. The rat is, besides his other praiseworthy qualities, an inveterate old thief, and in decorating his dwelling picturesquely he becomes quite lavish, as gold rings, diamonds, jewels of every value, and gold and silver watches, that had been missed, were found in rat nests. Here they were generally discovered set off with much taste by a piece of salt bag. In one rat's nest I found a set of false teeth in perfect condition. The rat could not have wanted to use them himself, because they were several sizes too big for him. He probably wanted them for a tool-box or jewel-case or some other equally useful object. The writer remembers reading in some odd book of a good-natured person who had discovered a family of young rats in a piano that stood in a room for some time unfrequented. They had made themselves so much at home in the interior of the instrument that the owner was unwilling to disturb them by playing upon it. The female rat probably wanted to get her young to some safe place away from her liege lord, and had succeeded in gnawing up through the leg of the piano. She had brought with her, in which to build a nest, a dirty

striped stocking big enough to have belonged to some distinguished Dime Museum fat lady.

XIII.—THE RAT'S MUSICAL TALENTS AND EYESIGHT.

Rats love sweet, soft, melodious tones, and a great many experiments have been made in taming rats thereby, but only with indifferent success upon the sharp-witted rodents, in spite of all the pretty stories to the contrary in the reading-books. So high is the rat's musical understanding rated, that there is a proverb among the people that rats immediately disappear from the house as soon as a young lady begins taking lessons on the piano. A mouth-harmonica seems to be the rat's favorite musical instrument, and its gentle strains exert the most power over him, far more than the tones of any other instrument. If the music be soft, mild, and pathetic, the rat will listen and come very near, for he is a very susceptible sort of beast, and, if closely observed, tears of sorrow, or of sad and tender reminiscence, will be seen coursing slowly down his cheeks. But if, on the contrary, the music be harsh, shrill, and discordant, such as would most likely be ground out by beginners, or if it proceed from a brass instrument, or drum, or if it be occasioned by a shotgun report, or explosion, it may drive the impressionable animals from places where they had been used to frequent. If, however, one is unsuccessful in trying to scare off the rats by noise at the first inning, a repetition will be of no avail.

The rat will take up his nest in all and any out-of-the-way places, as he shuns the light and lives wholly

in the dark and gloom. This is the cause of his poor sight; he can hardly see at all in the daytime, and in the night a little better. If you should meet with a rat by day, looking square in your face, depend upon it he isn't able to see you at all, in spite of the pretty gleam in his black eyes. His minutely acute ears, however, do him good service instead of eyes, so that he has very little occasion to miss the latter at all.

The rat is generally very timid, and extremely nervous, the slightest disturbance repelling him and making him shrink into obscurity and shadow. Yet it is his great peculiarity that he can adapt himself to any extremity of climate or description of place; he is found making himself at home in hotels, factories, public gardens, and other haunts of loud and constant noise, bustle, and confusion.

XIV.—RATS AS MORALISTS.

The Lord in making the rats is imputed to have done so to have them serve as scavengers for his wandering, wasteful tribes of children. But in our own day, as the majority of us do not wander, nor have wandered continually for the last two or three thousand years or so, and have slapped up many supposedly permanent villages like London, New York, or Paris, the restless, ambitious rat took into his head not to limit himself to such dirty kind of work exclusively. He then formed the resolution, and further carried out the purposes of his creator by taking upon himself the philosophic office of keeping man's pride in check. This he did by literally chipping a

large proportion of the gilt off man's earthy grandeur, and by destroying his works and belongings at every possible opportunity, with right hearty good-will and much perseverance. "Therefore," says a writer, "whatever man does, rat always takes a share in the proceedings. Whether it be building a ship, erecting a church, digging a grave, plowing a field, storing a pantry, taking a journey, or planting a distant colony, rat is sure to have something to do in the matter; man and his gear can no more get transplanted from place to place without him, than without the ghost in the wagon that 'flitted too'."

XV.—RATS IN THE GOOD OLD DAYS, AND THE MODERN
RAT SUPERSTITIONS.

In the merry days of old, rats were regarded as undisputed signs of witchcraft, and even scholars acknowledged this—at least they were compelled to, by the help of a blazing pile of faggots, or similar mild means known only to the good old times. What caused this belief among the people was, that an animal appearing to them so small should be the cause of such intense and continual annoyance to them. There was no barrier through which the rat could not effect its way to get at a certain object, thanks to its wonderful powers of gnawing. It was so omnivorous, ferocious, and destructive, that the people endowed the rat with superhuman qualities, and regarded it as a true child of the Devil, put upon this earth to be always pestering them. In regard to the rat's superhuman qualities, it appears to have cer-

tainly displayed more reason and acuteness, fighting in the daily battle of life, than any one of these thick-skulled humans could lay claim to. It was looked on with a great and most unreasonable aversion and loathing, born of superstition and fear, and which we find vehemently expressed in all the ancient books on the subject. This feeling, we cannot help believing, is not dead yet, according to the astounding anecdotes brought forth and widely copied in a great many of our American newspapers. The facts and data given in these learned articles about the rat's size, weight, and habits, in general, would make his hair stand on end with horror if he were to read them. As a matter of fact, the ordinary brown rat, which we find everywhere near man, is a pretty black-eyed, softly robed, and delicately constructed little animal; and although his fur may be plainly colored, like the plumage of the sparrow amongst birds, yet it is of the finest texture, and, when possible, is always kept scrupulously clean. In solitary captivity he is continually sitting on his haunches, cleaning his fur like a cat; and the writer has found, by actual experiment, the weight of twelve full-grown, well-fed New York city rats to amount to exactly twelve and a half pounds.

Formerly, in European countries, there was a general belief in the existence of strange and mysterious relations between this great slimy monster and the high-priests of witchcraft and sorcery. It was thought that this was the animal best adapted to carry out the diabolical plots of his Satanic majesty. In one part of Norway, the peasants used devoutly to hold a fast day once a year, trusting thereby to get rid of the pests of rats and mice. They had a Latin ex-

orcism which they used on these occasions, beginning with the words, "*Exerciso nos pestiferos, vermes mures,*" etc. Anything a rat left its trace upon was an omen of ill to the owner; and when by any chance a rat was ever seen on a cow's back the poor animal was doomed to pine slowly to death in consequence. In Ireland it was believed that premises could be rid of rats by reciting a rhyme over their holes, which was commonly called "rhyming rats to death."

XVI.—REVIEW OF THE RAT, AND CONCLUSION.

But since these times the people have succeeded in getting rid of a great quantity of superstition attached to the subject. It has also been learned gradually that the actions of the rat are prompted much more by natural than by diabolical instinct. However timorous and innocent looking we have found the rat to be upon impartial observation, yet his is a case of wolf in sheep's clothing, for he is the one of the whole brute creation that does the most undermining damage in every way to the homes, workshops, counting-rooms, store-houses and cultivated fields and acres of man. The rat is also at times his very ferocious personal enemy. The rat's code of morals will be found rather deficient, as we have tried to explain in the preceding rambling remarks. In fact, there are condensed in this small animal all the vices of the animal world. We have shown him in the pleasant light of a cannibal briefly making an end of all family ties by transferring his relatives down his stomach. We have traced

a faint outline of his great food greediness and his intemperance in strong drink, which is pretty near up to the human standard. We have pictured his strong liking for the hot blood of man and his utterly lacking an organ of veneration, digging up man's bones from their final resting-place to have them serve as food.

The strongest weapon the rats have against man, ranking even above their wonderfully constructed teeth, are their prodigious multiplying powers, "and," says Richardson, "if the rats were suffered to increase in numbers, unchecked, the time would not be far distant when the entire globe would but suffice to furnish food for their rapacious appetites to the exclusion of the human race." The only way man can hold his own against their mighty ravages and prevent his whole social organization from being undermined by them, is to wage a steady and unrelenting war, by the help of his own arts and the animals specially assigned by nature to do service for him as police, against the most bloodthirsty, cruel, and acute of enemies.

RAT EXTERMINATION.

There are four distinct methods of rat extermination, viz.: 1. Traps. 2. Poisons. 3. Cats, Dogs, and Ferrets. 4. Human Rat-catchers. We will first give some practical hints on

I.—TRAPS.

The rat is by no means one of the least intelligent of quadrupeds, and there is one thing we feel solid about—when he knows you really want to trap him he'll do his level best to avoid your kind intentions. There are snoals of ingenious rat-traps with plenty of mechanism in them which are certainly good as long as you don't plainly advertise them to the rats, which is about equal to saying "Look out, rats, this is a trap for you, with a bait!" After you have put out this charitable notice nary a rodent will you catch. We will now show how most simple people, after catching a lone specimen, give themselves "dead away," to speak classically, to all the rats there are in the neighborhood. Get a trap, no matter of what shape, material or brand—but by all means get one that doesn't let the rat out again after he has been once caught. Bait it with anything nice and tempting, and put it near the rat-hole, just where they come out, any time before you go to bed. In the morning you probably find you have caught a rat—maybe a big, grizzled old fellow with a scabby tail, or else a young one, half frightened to death—anyway it *is* a

rat, and a real live one at that, and you can forthwith proceed to kill him. Now clean your trap and smoke it out. Bait it again with the same care and, hundred to one, you find—*no rat*. The mystery of it is this: The first rat that came out of the hole on the first night saw you had put down something for him, so he sniffed the dainty bait and remarked under his breath that he was a devilish lucky dog and that he had struck a superior sort of a free lunch all to himself. With that he entered—the trap snapped harshly and cruelly, and the nervous little animal became frightened and sought to escape from his seeming abode of luxury. He couldn't get out, squealed long and plaintively, and worked hard against the sides of his prison. Bye and bye all the other rats came out to see the cause of all the racket. After investigating they find their young friend has been dolefully sold, and together make and keep a vow to steer clear of your traps ever afterwards. This is why you catch but one rat and no more; for a much more stupid and less nervous animal than a rat is would keep away from a similar arrangement in the future. We shall now try the experiment over again, but in a different fashion. Suppose we select a big round trap with falling doors at the sides and a hole on top. First be sure that the doors lift up and fall down very easily. If the bottom of the trap is of wire place it on sawdust, so that the rats are comfortable in it. Put the trap *away* from the hole, near the wall of the cellar, if in winter near the warmest place, always in a dark spot. As our friend likes comfort so much, put a bag over the trap, so that he can find the falling doors easily. Get some rags scented with about fifteen

drops of either oil of rhodium, oil of carraway, oil of aniseed, or a mixture of these oils. First tie a string around them and swab them around the rat-holes, then drag them on the ground near the wall, to the place where the rat-trap is and rub the rags well over it, then put them in. Have some nice tempting bait in the trap, either carrots, meat, broiled bacon, or cheese—anything fresh will do—but be careful to put in enough of it. If the trap is placed as we have above directed the rat will get in and not try to escape. *Make the trap as much unlike a trap and as much like a natural hiding-place as possible.* If this is done, it is highly probable you will have your cage chock-full of rats the next morning. It is very seldom this fails, but if it should not succeed the first night proceed as follows: Put the trap exactly as I have told you, with the exception to tie up the sliding doors. Let it stand there until the rats have eaten it out several times, replacing the bait. After the rats get used to frequent the place and think they have a “soft snap” on you, let down your falling doors again and you have them all!

After all is said and done, the most practical of all rat-traps is my little “Special Steel Trap,” which catches one rat at a time, but its cost is so reasonable that you can have a dozen of them for the price of one of the big wire ones. It is an utter impossibility for the rats to avoid being caught if the traps are properly placed, and it can, with ease, be so nicely adjusted that the gentlest touch of a rat’s paw will insure his immediate capture. And when Mister Rat has put down that little paw of his he is as securely held as if he were nailed to the floor. I have over

ten thousand of these traps in use in my professional rat-exterminating operations and sell barrels of them. The larger the space to be covered the more traps are required, and, where it is possible, remove your rat as soon as caught. Place the traps in the natural run of the rats; around swill-barrels, along the walls, etc. Its chief practical beauty is its innocent appearance, as there is nothing about its placid surface which tells the rats of its unerring aim. With every trap we furnish a chain-attachment and fastener; the latter is for the purpose of securing it to the flooring and prevents the rats from dragging the trap. As this Special Steel Trap is a boon to large institutions, ships, shops, factories, stores, hotels, office-buildings, flat-houses, warehouses, private dwellings, slaughter-houses, etc., etc., I quote the following prices on it, which are net:

Per dozen.....	\$3.00
Per hundred	20.00

II.—POISONS.

The common rat poisons are Arsenic, Strychnine and Paris-green. These are put up by enterprising people under a multitude of suggestive names, without specifying the kind of poisons used, however, or even a warning of their being poisonous, as the law implicitly directs. There is, indeed, a great deal of criminal negligence in the way these poisons are put upon the market, as in some the proportion of poison is so great that it would kill an elephant—whereas it should be exactly graded to the rat's capacity. The proportion of arsenic in one very-much-advertised rat-poison now in use, as analyzed by Dr. Otto Grothe,

a Brooklyn chemist, consists of 98.19 per cent. pure arsenic and 1.81 per cent. admixtures (coal, etc.). Would-be suicides and murderers have made use of these poisons extensively. Poisons in powdery form—such as arsenic and strychnine—are liable, very easily, indeed, to get mixed up with food, and have in that way been a powerful death-dealing agency. Their peculiar effect on the rats is to allow them to get over-doses, causing violent vomiting, followed by complete failure to kill or drive out. The Phosphoric Paste, the “Sure Pop” brand of which is very carefully manufactured by the present writer, is free from all of these objections, as it is in salve form and very hard to be accidentally mixed up with edibles of any kind. It is impossible for the rats to receive overdoses of it; and the phosphorus has the effect of burning and irritating them internally and forcing them to run for fresh air. Arsenic and strychnine rat-poisons are usually prepared in such heavy quantities that the rats prematurely die in the holes. On the other hand, the amount of actual poisonous matter in this “Sure Pop” Phosphoric Paste has been exactly proportioned to the rat’s system, making the amount of poison very slight. There is no secret at all in the compounding of this preparation, but it requires much experience and study of the rat’s nature, preferences and habits to make it so that it will work with proper effect. The utmost daintiness is also required in the handling of all its ingredients. We have practically shown on page 40 how the smell of phosphorus is the most powerful of attractions known to the rat, and how it will operate when everything else fails.

III.—DOGS, CATS AND FERRETS.

The claims of cats as one of the rat remedies we shall have to dismiss in very short order, as the exceptional cases in which they do good work are altogether too few and far between. The only domestic animal which really possesses value in *hunting* rats is the ferret, as, by reason of its india-rubber joints, it can pursue its prey home. Any terrier—no matter what variety—having a fair amount of intelligence can be broken in with ferrets, so that your ferret can do the hunting out and the dog—at the proper moment—can do the killing. The fox-terrier is by far the best ratting-terrier. He is quick, understands and remembers what is taught him, is full of ambition, and readily learns to regard the ferrets as his partners in the rat-hunt.

IV.—HUMAN RAT-CATCHERS.

The directions given with each of the remedies advocated by me are so plain that anyone can successfully put them into use. Where the rats have got altogether too thick, or where they hold possession of a place in such a way that there appears no clue to dislodging them, it is quite advisable to call in an expert. To this effect I have perfected a regular system of rat-exterminating in which the remedies I mention in this book are systematically applied—under my own superintendence—by a corps of experts. Through this improved system I am enabled to take contracts to exterminate rats (and also other vermin) from any kind of building in any city or town in the United States, providing the job is large enough. Correspondence on the subject given prompt attention.

THE ORIGIN OF THE FERRET.

WITH HINTS TO DARWIN.

We have stated, in the first chapter of this book, that the verb "ferret" is derived from the animal of the same name, but many *savants*, and even "plain people," as Lincoln said, have cudgelled their brains trying to trace from whence the *animal* has derived its name. After long and tedious delving into histories and musty tomes having even the slightest bearing on the subject, we are able herewith to enlighten these gentlemen. For this illumination they have long been waiting, we have no doubt, with the utmost anxiety and impatience. This requires us to go at length into the matter, and entails upon us the writing of the ferret's development from prehistoric times until merged into the animal of to-day, with its present shape, instincts, and habits. In the course of the essay we also prove conclusively that the animal originally comes from America. Many scientists will no doubt deem it peculiar to find us using many modern and untechnical terms in the following history, but let them rest assured that if we were to make use of our extensive scientific knowledge of the subject it would compel them to hunt up all the lexicons that had ever been compiled!

In the very good and very old days before our present reckoning, when mankind sported tails and was protected against the wind and weather by a long, hairy covering, and when both animals and man had a language of their own—in those times it was that two fair-sized buck Martens, one of the Beech and the other of the Stone species, stood on the southern point of what is now called Cape Farewell, in Greenland, longitude $30^{\circ} 30'$ east, latitude $60^{\circ} 2'$ north. They trembled violently from excitement, because they had just finished a friendly set-to of 64 rounds, lasting 3 hours 10 minutes, New York time, and which both had so far survived. The referee, an old good-natured fox, saw with his keen off-eye that there was no more fight in either of them, and pronounced the battle a *draw*, telling them to try it again on some future day, whereupon he speedily took his departure, as he was very busy just at that time umpiring base-ball games. The contestants then shook forepaws, a custom which has survived the centuries, and after a little cold water and rest had restored them they mended their broken friendship and made solemn pledges not to try harming each other any more. They further made a bargain to set up a business firm, which meant in those days, as it does now, division of spoils. In the language of that time the Beech Marten was called *Ver*, and his partner, the Stone Marten, *Rect*, therefore the firm was called “The Ver and Rect Bill-of-Fare Improving Co.” This title explains part of their object in making the trip described in the following pages. The other agreements were to do it in perfect harmony, and at the end of their pilgrimage to stick forever by that particular diet that had suited them

best. They were both very glad of their compact, because each one had formed a high opinion of the other's powers evidenced in the pummeling of one another's ribs. Talking things over leisurely, they found themselves getting hungry, and as their stomach was and is yet the Mainspring of their actions, they resolved to start immediately on the expedition. After they had traveled 48 hours due south-east (a direction which they instinctively followed all through their wanderings) they had the good luck to stumble upon a small but very fat pig, snoring comfortably on the banks of a river, known then as the Atlantic river, but since developed into the ocean of the same name, a further account of which is given further on. Ver and Rect found the stream about the size of our present Hudson as it flows by Weehawken. The partners accordingly killed the pig without much bother, ate it, and took a short nap (for those times) of three days, and after waking they stretched themselves, hopped around, and took a drink from the river, but no sooner had they swallowed a little of the water than they commenced spitting, spluttering, and twisting their faces into all shapes, as the water was very salt and brackish. Eating the very fat pig and drinking the salt water had not agreed with Ver and Rect, and they put down the following on the tablets of their minds for future reference: "Fat pig bad feed—salt water ditto." Hence all their descendants, right up to this day, never indulge in pork or use salt at all.

Ver, who wore spectacles, then took the reckoning, and found they had just traveled 1910 prehistoric miles, quite a distance for those days. The firm resolved lazily to start again, and after yawning a good

deal, and lying in the sun a little while longer, they still felt unpleasant fat-pig and salt-water sensations. They paddled across the Atlantic river, and by the time they had arrived on *the other side* they had no objection to lunching again, and as fortune seemed to favor them, they spied in the distance a very big woodchuck. After an exciting chase, Ver and Rect captured him, and at first devoured him with vim. The poor Martens, however, were doomed to disappointment, for when they had bolted their prize and had taken their usual nap of three days, they woke up with great pains in their much-abused interior departments. They thought the woodchuck business over carefully and made this inward memorandum: "Woodchuck may be very good, but we prefer lead-pipe."

Four days after the feast of the woodchuck, wandering on rather discontentedly, they were suddenly delighted by a wonderful change in the climate, that had previously been harsh and cold, but was now mild and radiant. Birds were singing from beautiful trees, Nanny and Billy goats, and sheep were gamboling about cheerfully. Lions and wolves were doing a thriving business, and, just like the bulls and bears of to-day, were all living on the poor lambs. The Martens wandered about a mile through this happy land, and in course of time, bethinking themselves of their sacred mission, they fell to work on a Billy goat, who was slain, after a hard fight, as an offering to their great god, The Stomach. It is evidenced by our records that this goat must have been a huge animal, for Ver and Rect lived three days on his carcass, although at the end of this time they felt rather sick. The entry in their inward journal was as fol-

lows: "Disgusted with Billy goat; hopes of finding our steady feed very gloomy." Rect began to feel discouraged, but Ver cheered him up, saying unto him: "Rec', I have a feeling within my bones which tells me our promised land of Good Feed draws near. Brace up thy suspenders, and let us be of good mien and travail onward, for there is no philosopher on earth of a cheerful temper with his belly unhinged." Verily, after a two days' journey, they observed, to their joy, right on their road, a great mountain overgrown with timber and underbrush. Upon reaching it, they found it full of game of all kinds, some of which they began to attack immediately. Among others they caught a little, delicate gray rabbit, and after critically tasting its flesh, were delighted with its flavor. They thought now they had found a solid bill-of-fare material, and made arrangements for staying in the place by digging themselves comfortable beds under the roots of a big tree. There was such an abundance of these delicious rabbits that Ver and Rect concluded they had enough of a wandering life, and that the mission of the "Bill-of-Fare Improving Co." was fulfilled. They called the land, on account of the great number of these little animals, *Engelland*, meaning the land of the Engels, or angels, at present England. Having kept bachelor's hall for awhile under the big tree, they formed the acquaintance of some of their rich neighbors, who were very kind to them, and whom the Martens found to be relatives of theirs. To Ver and Rect's former pastimes of hunting, eating, drinking (cold water), and sleeping, they now added courting. Ver acquainted himself with a pretty young Miss Weasel, a blonde, and paid her

attention, and Rect took fancy to a handsome and stately Miss Mink, a brunette. In two hours after their first courtship—the thing was done quicker in those days—Ver and Rect were married men. They begot children, grandchildren, and great-grandchildren, who in their turn intermarried into the families of the Sables, the Fitches, and the Ermines, but all the descendants of Ver and Rect went under the name of Ver-Rects, afterwards verrects, until it has been gradually mellowed into our present *ferrets*. The ferrets now lived in the woods of old Engelland, hunting and eating rabbits and enjoying themselves with all their families on this only ingredient of their bill-of-fare, which Ver and Rect thought of making the permanent ferret food by law. Of course the ferrets grew into the most expert of rabbit-hunters, and they have retained this ability to the present day. Never after they had been in Engelland did Ver or Rect or their descendants subsist on pigs, woodchucks, or billy-goats. One morning a great accident happened, which brought them a different kind of food, consisting of a large army of black rats. The way it happened was this: The earth on which we now live, and which swings around at a pretty good gait on its own axle, broke it right near the north pole and all the waters spilled out there. They overflowed the Atlantic river 1500 miles on each side, and thus formed our present Atlantic Ocean. The high mountain of England was just saved from the water, making it an island, and just then 750,000 live rats swam on shore to save themselves from drowning.

The ferrets killed a few of these rats to experiment upon, and were more than delighted with the tender

meat, Ver and Rect making the ferret's bill-of-fare for all ages chiefly consist of rabbits and rats. Sometimes the ferrets went rabbit and sometimes rat-hunting, and were as expert in the one as in the other, and so it is that the ferret of to-day occupies itself, by the mandates of its forefathers, Ver and Rect, in the vigorous hunting throughout all lands of the rat and the rabbit. From whence the rats came before they arrived in England will be found in the next chapter.

THE CONTINUATION OF THE FORMER CHAPTER.

Our rats are from China. The proof of this will be found in more particularly observing the rat's looks, vices and nature, the manner in which he carries his (pig) tail, and further, the great love of the Chinaman for him. We contend also that the Chinaman and the rat are relatives, for it can be said of both, as it has been said of one,

“That for ways that are dark,
And for tricks that are vain,
The heathen Chinese is peculiar.”

So we say positively that the rat is Chinese, and there is no record that can prove the contrary. The rats were kept locked up in that great empire of solid fences before they showed themselves to the other countries of the earth. Forty years before the great Ver and Rect battle, 750,000 big rats, with their tails out straight, like real Chinese pig-tails, concluded to make an exodus out of the heavenly territory, under the leadership of 75 big chiefs. They didn't want to

leave particularly, but they were afraid of being starved out altogether, or else murdered for food by the Chinese army. After the rats had put themselves in battle array, and were duly formed in procession, the 75 big chiefs, who were distinguished from the others by their big red noses and muscular forms, held a council. At the end of a three days' session, during which a great many speeches had been made and a good deal of fighting had been going on, a very old political rat-boss arose and made a proposition. His speech was about as follows: "Honored Rats, and fellow-citizens: I have been a rat for a good many years, and don't want to change my business. I must say I like being a rat. But if we are hacked up in soup, or starved out completely, I have my doubts of our staying powers. Countrymen and lovers, this is what we are threatened with, and we must move. Where to? is the question that arises, and I have thought it over. The climate is hot to suffocation and very unhealthy here; let us trust to luck and go west, as a friend of mine said on a similar occasion. 'Go West, young man, go West,' I say unto you now, and I advise you to do so as speedily as possible." This speech was received with "tremendous applause" for the old rat waxed very eloquent, and the "go west" resolution was passed unanimously. An amendment was put in, changing the course to north-west, for the meeting was held during such hot weather, that some of the radicals wanted to start out immediately and settle on the North Pole. They were promptly overruled, of course, and the 750,000 rats, including males and females, wandered on slowly in their chosen direction, increasing on the road to a wonderful extent. The

council concluded to hold a thorough count or census of rats, and each male rat, it was provided, should not be bashful about coming forward and giving the true number of his whole family—no doctoring of the returns allowed. After the count was completed, all the rats over and above the original amount, 750,000, agreed to stay in the country they had arrived at. The originals kept on moving towards the north-west, but the others filled up every section of the earth they passed through. The rats made friends with neither man nor animal on their journey. First they made a stop in a state where all the owls—although they were countrymen of the rats, having emigrated from China—fell upon them, and there was a pitched battle, the rats afterwards hiding themselves in their holes under ground after losing a great many in dead and wounded. One day they agreed to make an excursion out of the line of their route and so take in Egypt. In a few weeks they here ate up all the corn from the fields, stealing and hiding away anything edible, and quite creating a panic, but always fighting shy of the daylight. We read in the histories of a great locust plague in Egypt, about this time, but on this point we have a revelation to make. The locust was just as innocent of this crime as it is of building the Brooklyn Bridge—*it was the rats that did it*. When the rats arrived in Greece they scored a signal victory, because it was there that they extirminated a whole nation—the mice—and the former have strongly held this country ever since. We are authentically informed, by reference to our own private rat historian's notes of this trip, that the first place the rats met their great enemy, the Dog, was in Ancient Rome, where the

dogs were put on them by man with much success, and here the rats could get no firm foothold. This caused them a roundabout journey north, and when they thought they had pretty well established themselves in ancient Gaul, now France, they were raided by a strange tigerish kind of animal which proved afterwards a lasting antagonist of theirs—the Cat. The poor rodents found here the other enemies they had encountered on the road, the owl and the dog, who were always urged on fiercely by man. While the rats were struggling along in France, the land was convulsed by an earthquake, causing the Atlantic river's banks to be overflowed. This submerged the land on which the rats were, and as they all could swim they headed their course for England, the nearest dry land. It was here the ferrets joined man, dogs, cats and owls, but the more the rats were hunted, the more acute and crafty they got to be, until they found out innumerable hiding-places and ways of preservation, so we have them still with us to-day. We thus close our story of research, through which we have shown America as the birthplace of the ferret, China of the rat, and England as the first country employing ferrets for rat-hunting.

FERRETS:

SURE POP BREED.

RAISED AND TRAINED

BY THE

AUTHOR OF THIS BOOK.

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PHOSPHORIC PASTE,

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SURE POP Patent Insect Powder Bellows.

PATENTED APRIL 29, 1884.

NUMBER OF PATENT, 297,693.

THE ADVANTAGES OF THIS MACHINE OVER ALL OTHERS ARE:

1. It is easily loaded.
2. There is no waste of powder.
3. The Powder can not get back into the Bellows.
4. The top can not get worked off.
5. The Bellows are made under my own supervision, and every one is guaranteed.

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