## FINE RECIPE FOR COLDS.

Any druggist can supply these in gredients or will get them from his wholesale house.

"Mix half pint of good whiskey, two ounces of glycerine; half ounce of Concentrated pine compound. Shake the bottle well each time and use in doses of a teaspoonful to a tablespoonful four times a day." This prescription is said to work wonders.

The Concentrated pine is a special pine product and comes only in half ounce bottles, each enclosed in an air-tight case, but be sure it is labeled "Concentrated."

### REAL NEED.

"I say, old chap, will you lend a friend a dollar."

"Is he really in need of it?"

"Rather. He wants to pay me with it."


## RASH ALL OVER BOY'S BODY.

**Awful, Crusted, Weeping Eczema on Little Sufferer—A Score of Treatments Prove Dismal Failures.**

**Cure Achieved by Cuticura.**

"My little boy had an awful rash all over his body and the doctor said it was eczema. It was terrible, and used to water awfully. Any place the water went it would form another sore and it would become crusted. A score or more physicians failed utterly and dismally in their efforts to remove the trouble. Then I was told to use the Cuticura Remedies. I got a cake of Cuticura Soap, a box of Cuticura Ointment and a bottle of Cuticura Resolvent, and before we had used half the Resolvent I could see a change in him. In about two months he was entirely well. George F. Lambert, 13½ West Centre St., Mahanoy City, Pa., Sept. 26 and Nov. 4, 1907."

Potter Drug & Chem. Corp., Sole Props., Boston


### Typographical Union Led.

The first tuberculosis sanitarium to be erected for the benefit of the laboring men was built by the International Typographical union in connection with its home at Colorado Springs. The International Printing Pressmen and Assistants' union have recently decided to erect a similar sanitarium, and steps are now being taken to open such an institution. The International Photo-Engravers' union, while not conducting a sanitarium of its own, pays for the treatment of its tuberculous members in institutions in various parts of the country. The International Boot Workers' union are recommending to their members that they ally themselves with the various organizations united in the fight against tuberculosis.

### The Rare Gift of Courtesy.

Courtesy includes not merely social kindness, graces of speech, absence of rudeness, but honorable treatment of business associates and of all the fellow citizens with whom a man of affairs may have business to transact. It is not American to keep one citizen waiting all day at the door because he is poor, and to grant another citizen an interview because it is believed he is rich. Wisdom is not confined in a purse, and frequently much wisdom may be learned from a poor man.

### A Long-Panter.

Mary, aged 14, was found one day by an older sister sobbing and crying.

"What is the matter?" she asked, with great concern.

"Three boys have asked me to go to the dance to-night," was the unexpected reply.

"Well, my dear child, certainly that is not such a terrible misfortune."

"Yes; but I told the first one I would go with him, and the last one was a long-panter"—Harper's.


## THE DIFFERENCE

**Coffee Usually Means Sickness, But Postum Always Means Health.**

Those who have never tried the experiment of leaving off coffee and drinking Postum in its place and in this way regaining health and happiness can learn much from the experience of others who have made the trial.

One who knows says: "I drank coffee for breakfast every morning until I had terrible attacks of indigestion producing days of discomfort and nights of sleeplessness. I tried to give up the use of coffee entirely, but found it hard to go from hot coffee to a glass of water. Then I tried Postum.

"It was good and the effect was so pleasant that I soon learned to love it and have used it for several years. I improved immediately after I left off coffee and took on Postum and am now entirely cured of my indigestion and other troubles all of which were due to coffee. I am now well and contented and all because I changed from coffee to Postum.

"Postum is much easier to make right every time than coffee, for it is so even and always reliable. We never use coffee now in our family. We use Postum, and are always well."

"There's a reason" and it is proved by trial.

Look in pkgs for a copy of the famous little book, "The Road to Wellville."

**Ever read the above letter? A new one appears from time to time. They are genuine, true, and full of human interest.**


# Scourge of Field Mice Sweeps Nevada

BY STANLEY E. PIPER.

DAMAGE by field mice attracted the attention of the ranchmen in the lower part of Humboldt valley, Nevada, early in the spring of 1906, and became severe during the following summer. In the fall and winter of 1906, and became severe during the following summer. In the fall and winter of 1906-'07 damage had increased until fields here and there in the valley were seriously injured.

By October, 1907, a large part of the cultivated lands in this district had been overrun by vast numbers of mice. The yield of hay had been reduced by one-third; potatoes and root crops were largely destroyed; many alfalfa fields were ruined by the mice eating the roots of the plants, and the complete destruction of this, the chief crop in the valley, was threatened.

The height of the plague was reached in November, when it was estimated that on many large ranches there were from 8,000 to 12,000 mice to each acre. The fields were riddled by their holes, scarcely a step apart, averaged 150 to 175 to the square rod. Ditch embankments were honeycombed, and the scene was one of devastation. Serious losses in hay and root crops during the summer proved but a slight forerunner of the damage which began in the fall with the disappearance of green food. Burrowing


DISTRIBUTING POISON TO KILL MICE

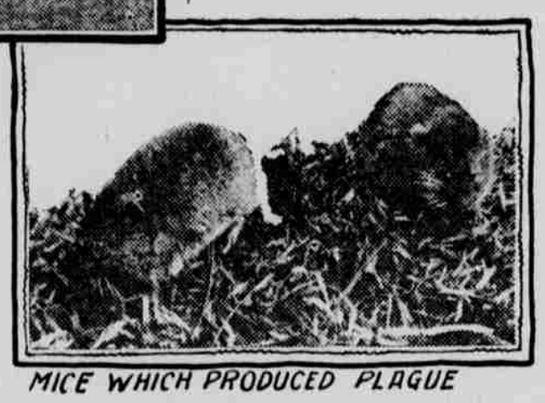
down about the plants, and extending their underground runs from root to root, they either killed or seriously injured the alfalfa. By November they had destroyed so large a percentage of the plants that many fields were plowed up as hopelessly ruined. They attacked also the roots of trees, seriously injuring or quite destroying orchards. They killed most of the young shade trees planted along ditches, and so completely girdled large Lombardy and silver poplars that in some cases they caused the death of even such hardy trees.

The great majority of ranchmen knew neither what to expect from such great numbers of mice nor how to check them. Such plagues had usually been allowed to run their course until brought to an end by natural agencies. Hence it is not surprising that in Humboldt valley no concerted or systematic effects to suppress the plague in its earlier stages were undertaken, but after the mice swarmed in thousands over the fields many attempts were made to destroy them by distributing wheat poisoned with phosphorus. These, however, were spasmodic and generally proved futile, as the fields experimented on were quickly reinvaded from adjoining lands. While a few fields favorably located were saved by early poisoning, the results of such unsystematic efforts amounted to practically nothing in overcoming or even materially checking the plague.

The preparation in general use by ranchmen consisted of wheat treated with a strong solution of yellow phosphorus in carbon bisulphide, a cheap and effective poison for field mice, but inflammable, explosive, and dangerous to birds. As a result of its extensive employment in the valley, California quail, an introduced species, were decimated, and magpies, crows, meadow larks, and smaller seed-eating birds suffered extremely. On one occasion 67 horned larks were found dead on about four acres a few hours after the poisoned grain had been distributed. Fortunately hawks, owls, gulls, and ravens were not affected, but many skunks and domestic cats were killed as the result of eating mice dying or dead of phosphorus. Several accidents occurred in handling the solution, and cases of fatal poisoning of live stock were frequent.

Several attempts by ranchmen to induce contagious diseases among the mice by means of advertised bacterial preparations failed.

Chiefly through the co-operation of Mr. George S. Webb, manager of the large Rodgers ranch, systematic experiments to destroy the pests, undertaken early in January, 1908, by the biological survey, demonstrated that such mouse plagues can be controlled and the greater part of the losses prevented. The experiments of the survey proved that mice can be effectively destroyed in winter by alfalfa hay poisoned with strychnia sulphate, and this preparation was generally recommended in the valley. On the Rodgers and Anker ranches a force of 7 to 15 men was employed to distribute the poison in the fields, with most satisfactory results, and without the dangers incident to the use of phosphorus and grain.



MICE WHICH PRODUCED PLAGUE

By March 15 poisoning, supplemented by natural agencies, had destroyed the mice on several thousands of acres where they were most abundant, and the plague was broken before the remaining alfalfa fields had been overrun. In scattered centers mice continued in destructive numbers until May, but without regaining to any considerable extent by reproduction they steadily decreased. Later in the summer they had almost disappeared from the valley.

The scourge of mice had swept over about four-fifths of the cultivated area in the lower part of Humboldt valley. Of 20,000 acres in alfalfa, about 15,000 were so seriously injured as to require plowing and replanting. Over most of this area the alfalfa was replaced by grain crops for the season of 1908 at great expense and loss, since good alfalfa lands pay gross returns of from $60 to $70 per acre, while good grain crops return only $35 or $40 per acre.

The shortage of hay on the Rodgers ranch, where 2,200 acres were in alfalfa, was estimated at 2,000 tons. On Anker's ranch of 650 acres it was estimated at 600 tons. Other ranches suffered in proportion, and the loss of hay in the valley amounted to not less than $50,000. W. C. Pitt, who farms 1,400 acres of alfalfa, estimates his complete loss at $20 per acre, or $28,000. John Font estimates his damage on 1,000 acres at $20,000, and Mr. Anker considers his loss on 650 acres to be $8,000. Mr. Webb, on the Rodgers ranch figures the complete loss on 2,200 acres, part of which pays considerably short of the best returns, at $30,500.

A careful consideration of the losses in hay, pasturage, root crops, and trees, the expense of restoring alfalfa fields to their former condition, and deducting the value of a grain crop for 1908 shows the average loss to be about $20 per acre. On this basis the damage to the valley amounted to $300,000.

Simultaneously with the plague in the lower part of Humboldt valley mice appeared in enormous numbers farther up the Humboldt river and its tributaries about Winnemucca, Battle Mountain, and in Paradise and Little Humboldt valleys. As the lands infested in those districts were chiefly great natural hay meadows of red top and wild clover, the damage was less severe. However, gardens and isolated alfalfa fields were seriously injured. Later, reports of mice in alarming abundance were received from King river, Quinn river, and Carson and Smith valleys, Nevada; from Weber river valley and from Sanpete and Utah counties, Utah, and from Honey Lake valley, California. In none of these localities was the damage so extensive as in Humboldt valley, though plagues of like severity were plainly threatened.

On learning of severe damage by mice in Carson valley, a hundred miles southwest of Lovelocks, in April, 1908, the United States biological survey sent several assistants to the valley to check the threatened plague. Carson and Humboldt valleys are alike in having large areas in alfalfa bordered by desert lands, on which field mice do not live. On a tract of about 2,500 acres near Minden mice were found to be excessively abundant, and in some fields 10 to 25 per cent. of the alfalfa plants had already been destroyed. Several smaller centers were similarly affected, while over the valley generally the mice were somewhat in excess of normal numbers. This was a condition similar to that presented in Humboldt valley during the spring of 1907, and young of all sizes were abundant. Examination of many females, a large percentage of which were pregnant, showed an average of from six to seven young, while in a number as many as ten were found. Although alfalfa was already well grown, furnishing the mice abundant food, by systematic poisoning, under the direction of the biological survey men, they were so effectively reduced in the infested areas as not to be dangerous again during the season—in other words, a plague was averted.

The results actually obtained here prove that mouse plagues can be checked. It takes several seasons to produce a general plague of mice, and damage is noticeable for at least a season before a serious outbreak occurs. Though natural agencies may be depended upon to overcome such abnormal numbers finally, yet, unless active repressive measures are taken, enormous damage to crops will result. Control, easy at first, becomes more and more difficult as the mice increase in numbers, and, after a plague is well established, is very expensive.

In Humboldt valley, in the beginning, a little poisoning with green alfalfa or crushed wheat would have sufficed to prevent the plague. During the fall and winter of 1906-'07, when the mice seriously injured fields here and there, they could have been destroyed with poisoned alfalfa hay. Even during the summer of 1907 concerted and vigorous poisoning would have destroyed them at a cost small indeed in comparison with the damage they inflicted later.

Of the many remarkable features of the mouse plague in Humboldt valley, none is of greater significance, than the large numbers of birds and mammals which gathered to feed on the mice. Under rows of trees, about the bases of fence posts, and scattered everywhere in the fields were regurgitated pellets of mouse fur and bones, affording abundant proof of the services rendered by birds, while many holes and destroyed nests in the fields showed the work done by skunks and coyotes. So apparent was the assistance rendered by these creatures that it attracted the attention and secured the protection of the farmers, many even sparing the coyote, whose services as a mouse destroyer deserve to be more widely recognized. In Nevada coyotes were frequently seen catching mice in the daytime, and their droppings were composed entirely of mouse fur and bones.

It is deplorable that, even when their usefulness is as apparent as here, some persons continue to destroy valuable birds and mammals. During the investigations in Humboldt valley no less than 29 large hawks were found hanging on wire fences, their useful lives ended by thoughtless gunners.

The striking evidence of the valuable services of the natural enemies of mice seen during this plague is but an example of their constant value. Hawks, owls, gulls, crows, ravens, herons and shrikes among birds, and skunks, coyotes, foxes, weasels, badgers, and wildcats among mammals, habitually prey upon field mice, and are most valuable in preventing undue increase of these pests.

Thorough studies have shown hawks to be most beneficial allies of the farmer, orchardist and nurseryman. Most species rarely, and many of them never, attack poultry. In the Nevada valleys all species of hawks and owls are distinctly beneficial, and here rigorous protection cannot be too strongly advocated.

Among mammals the weasel and the skunk are especially worthy of protection. They are most persistent enemies of mice, and are less likely to be driven out by civilization than are other mammals. When particular individuals raid poultry houses it may be necessary to destroy them, though usually it is easy to make such houses proof against their attacks. Far from being a menace, they are generally most beneficial mammals, and, living, are worth many times the value of their pelts.

It is gratifying to note that in many localities the people are learning to appreciate these natural enemies of rodent pests, for even more important than legislation for the protection of valuable birds and animals is the recognition of their services by the farmers.

In Nevada it was noticed that hawks and owls hunted chiefly in fields near the few plantations of large trees to be found in the valleys. Beneath these trees the ground was fairly carpeted by disgorged pellets of fur and bones, represnting thousands of mice. While certain species of hawks seldom frequent trees, others habitually perch in them, notably the large rough-leg, Swainson, and red-tail, which were the most abundant and persistent mousers.

It was estimated that during the height of the outbreak birds and mammals destroyed some 45,000 mice daily. Although their combined assaults unaided did not suffice to abate the plague, yet when the number of mice was reduced by poison, and long before it approached the normal, they were able not only to prevent increase, but to cause a rapid decline, which continued until the mice became so scarce that the predatory birds and mammals were forced to scatter and look elsewhere for food. It is fair to infer that had these friends of the farmer been protected in the beginning they would have been able from the first to hold the mice in check, preventing the abnormal increase so that there would have been no plague.

The mouse which produced the plague in Nevada, locally known as "black mouse" is the Carson field mouse (microtus montanus), one of the numerous species of short-tailed field mice or meadow mice, a group which has caused widespread destruction in various parts of the world. This field mouse is rather widely distributed in the valleys of Utah, Nevada, northeastern California and eastern Oregon. In nearly all parts of the United States short-tailed field mice are among the most abundant of mammals, and a number of species in widely separated localities have occasionally exhibited the same tendency to excessive increase, indicating that favoring conditions may produce mouse plagues wherever the mice exist. Even when in small numbers they destroy considerable clover and alfalfa and injure orchards, nurseries and root crops.

This is the first recorded instance of an irruption of field mice in North America attaining the proportions of a plague. The experience indicates the probability of future and even more disastrous outbreaks. In the extensive reclaimed areas of the west the abundant food and luxurious cover furnished by alfalfa fields and the miles of irrigation ditches, which afford these mice suitable homes along their banks, greatly favor their increase, while surrounding desert conditions limit the spread of mice beyond the cultivated areas.