

Finds Bats to Be Malaria Cure

Erection of "Roosts" Around San Antonio Made the Lowlands Habitable.

EXPERIMENTED FOR YEARS

Dr. Charles A. R. Campbell's Discoveries and Scientific Work With Bats Interests Naturalists All Over World.

Los Angeles.—Malaria, the disease that competes with tuberculosis and cancer in its heavy toll of life, has found its Nemesis since science protects and shelters the bat as the natural enemy of the malarial mosquito.

The result of Dr. Charles A. R. Campbell's discoveries and scientific work with bats and mosquitoes has interested naturalists all over the world. The first bat roost was built in San Antonio for the purpose of ridding the city of the pestiferous malarial mosquito.

For years Dr. Campbell experimented on bats to discover why they were immune from the disease that wrought such havoc with human beings.

Bats Abhor Jazz.

It took a great many years for Dr. Campbell to be sure of the cause for the difference in the susceptibility of the bat and that of other mammals. W. D. Hornaday writes in the Los Angeles Times. The great difference in the anatomy of the bat was found to be in its relatively much larger spleen. It is to this organ that Dr. Campbell attributes the ability of the bat to thrive on the mosquito and consume large numbers of them without being affected.

In his experiments with bats Dr. Campbell has come across several peculiar characteristics of the animal. For instance, bats abhor jazz. A phonograph, a jazz record and a small boy stationed on the top of a hunting lodge infested with bats so startled the animals in the early morning hours as they returned to roost that they flew some two miles away, entered another lodge and never returned to the one in which they had been living for two years. The explanation of this is that the ear of the bat is so delicate that discordant or strident noises are to them the most irritating of all sensations.

The remarkable value of bats as a health service was demonstrated in San Antonio when the malaria-infected swamp region around Lake Mitchell where there was abundant grazing for cattle was experimented on. It has been said that formerly it was impossible to build fences around this land bordering the lake strong enough to hold the cattle.

The myriads of mosquitoes were not only dangerous on account of their germ-carrying propensities, but their bite was too painful even for beasts having shoe-leather hides to endure. Dr. Campbell erected a bat roost on a rise in the neighborhood of the lake and in a year the place was cleared of mosquitoes and thousands of bats had taken their places. The grazing land is now covered with fine, healthy cattle and the farm land is irrigated from the waters of the lake. Malaria is almost unknown among the people dwelling in that locality.

It requires ten to fourteen days for the malaria parasite to develop in

the blood of the mosquito after the insect has been infected. With a myriad of bats flying about each night in search of mosquitoes as food there is little chance of a mosquito living ten days after it is old enough to fly abroad at night.

Many Bat Roosts in San Antonio.

After the success of this campaign against malaria bat roosts were established in the southwest outskirts of San Antonio. This was so successful in ridding that portion of the city of mosquitoes that the state erected another at the Southwestern Insane asylum in San Antonio. Another was erected at the West Texas Military academy in Alamo Heights. Summer homes and farms are now taking up the idea.

Some of the bat roosts erected under Dr. Campbell's supervision are of mammoth size. Often they rise to a height of thirty to fifty feet and are fifteen to twenty feet square. The largest of them accommodate from 5,000,000 to 8,000,000 bats, it is estimated. In the early evening as they take their departure for the mosquito-hunting grounds they have the appearance of a dark cloud. Bats do not

range over a wide territory in their foraging expeditions, it is asserted. Ordinarily they cannot be counted on to cover a radius of more than three miles and often they confine their flights to a mile or less from their roosting place.

Maniac, Alone on Ship, Comes From "Nowhere"

New Bedford, Mass.—A 30-foot schooner, battered and mastless, was discovered ashore on West Island, in the outer harbor here recently. On board the hulk was Osmund Erickson, who said his address was the sea. When found he was eating a handful of grass.

Erickson, who was suffering from starvation, was unable to tell where the vessel came from. According to police his memory was impaired by the privations he had undergone.

The schooner, the name of which could not be determined, carried a crudely arranged mast to replace two that had apparently been carried away by a storm. This mast was about six feet high and pieces of old clothing had been used for sails. The hull had been mended in several places with bits of zinc and tin.

U. S. Film Shows Dangers to Elk

Campaign to Save Majestic Member of Deer Family From Fate of the Buffalo.

STARVATION GREATEST FOE

Adequate Winter Grazing Grounds Are an Absolute Necessity—Winter Snows Drive Herds Into Forests Where Poachers Get Them.

Washington.—The question of whether the elk—a noble American animal and the most majestic of the deer family—is to follow the buffalo into near-extinction is asked in film form in a new United States Department of Agriculture motion picture, "When Elk Come Down."

Up in the highlands of Yellowstone National park dwell the remaining big herds of this animal. In the park where they are well protected there is an abundance of feed in the summer time. But in the winter, when the big snows sweep down on the Rockies, the elk are forced from the mountains and out of the park, to the lower levels where there is less snow. In this annual migration many of the elk pass into the national forests which entirely surround the park. Thus they become a source of concern to the forest service, which, in co-operation with the Montana state game department, is responsible for the new film.

To Protect the Elk.

The film story opens when a big snow is due. From a ranger station, forest rangers and a state game warden start out to protect the elk from "tooth hunters." Up in the mountains "Six Prong," a great bull elk, sniffs

the coming snow and starts to lead his clan to the lower country. Sam Biller, a notorious poacher, also senses the coming of "elk weather," and he and a companion leave their cabin for the open ranges, knowing that the elk will be easy to trail and kill when they are handicapped by snow and hunger. The adventures of the three elements in the triangle are then shown, up to the trailing and killing of an elk by Biller and Biller's arrest by the rangers. The story ends with the statement that the elk can be protected from poachers, but that starvation, the animals' other dangerous foe, can be permanently thwarted only by the provision of adequate winter grazing grounds.

The available winter range in the national forests is far too limited in area to support the great herds that migrate from the Yellowstone park. The greater part of the winter feeding grounds is, also, not within the national forests but under private ownership. The solution of the elk problem, it is said, lies in the purchase of these private lands either by the government or by popular subscription.

Cold Photography.

"When Elk Come Down," was photographed last February in the Absaroka national forest, Montana. The camera work was done with the thermometer twenty and thirty degrees below zero. There are many scenes in which the elk appear on the snow-covered mountains. Good "close-ups" of the animals were obtained by the use of telephoto lenses.

The picture, two reels in length, will be distributed and exhibited largely through the co-operation of organizations interested in perpetuating the elk and other game animals. Prints may be borrowed from the department, or may be bought at the manufacturing cost by authorized institutions.

FIND NEW ANIMAL FOSSILS

Specimens Discovered in Arizona Throw Light on American Life in Pliocene Age.

Washington.—Animal fossils throwing a new light on the little-known animal life of America in the Pliocene age, have been added to the collection of the Smithsonian institution by the field explorations conducted in Arizona in the past year, and described in a report by the institution. Among the most interesting specimens discovered the report said, are a new species of mastodon, a large and small species of camel and two or three species of horses. J. W. Gidley, member of the Smithsonian staff, who conducted the explorations, says the collection of fossils "represents practically a new fauna of the Pliocene age, containing about 60 vertebrate species."

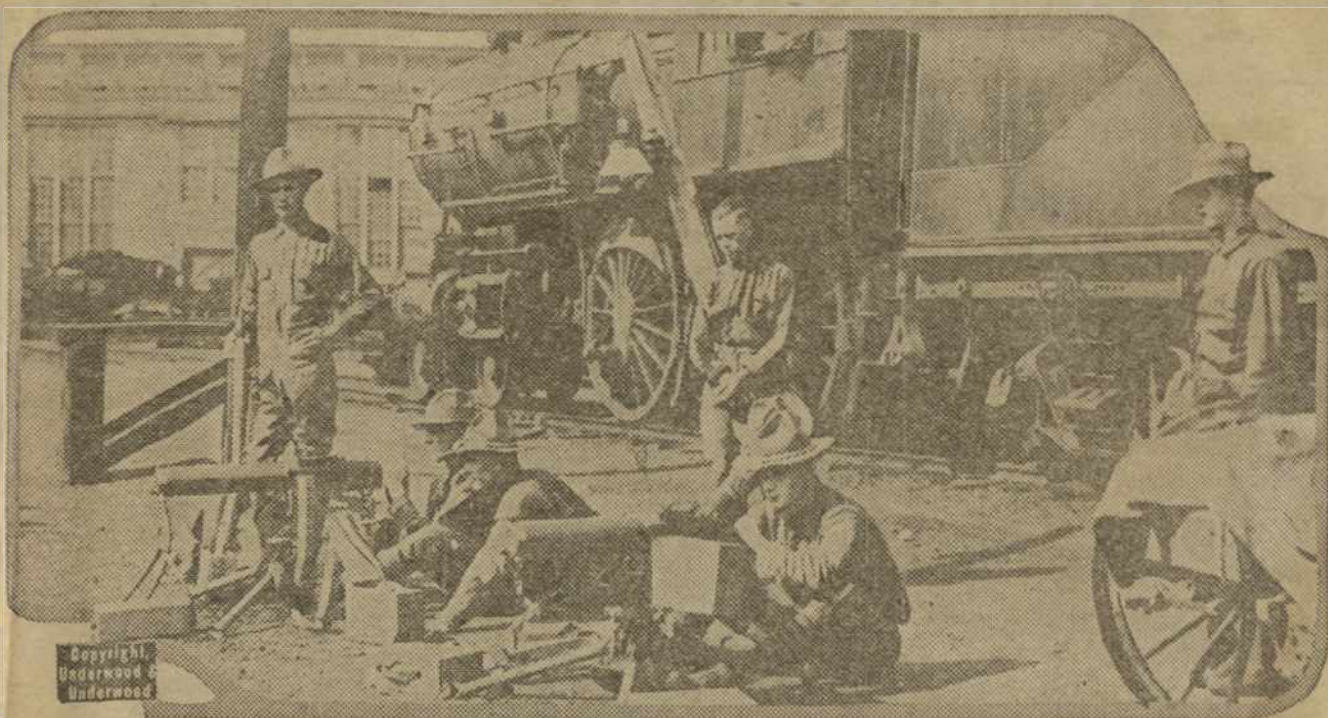
Dealing with the astrophysical field work of the institution, the report said the observations of the sun now being made at its station on Mount Montezuma, Chile, are being telegraphed daily to Buenos Aires and "employed regularly by the Argentine weather bureau for weather forecasting purposes."

"While the Smithsonian Institution," the report said, "is not yet in a position to champion the use of statistics of solar variation for weather forecasts, the great interest which its studies of solar variability have aroused here and abroad seems clearly to warrant the continued maintenance of its two stations until a satisfactory basis for a test of the solar variability as a weather forecasting element has been laid."

She Parachutes 1,600 Feet.

Rome.—Signora Geraldine Grey Lofredo ascended in an airplane at the Centocelle military flying grounds, and descended over 1,600 feet in a parachute. She is the first woman to have achieved such a perilous feat in Italy.

Illinois Troops Keeping the Peace in Bloomington



Bloomington, Ill., has been one of the "bad" spots in the railway shopmen's strike and state troops have been on guard there. A machine-gun section is here shown in the Chicago and Alton machine shops.

Real Hobo Is Friend of Work

Denver Dutchy Declares That Wanderers Bear Brunt of Many Heavy Tasks.

BEMOANS THE DEAR OLD DAYS

Old Thoroughbred Tramp Has Passed and Profession Has Petered Out—Only in Comics Do You See Tried and True Tramp.

Seattle, Wash.—Where are the tramps of yesterday?—those aptly dubbed "knights of the road," who, in halcyon days, were a common sight along stretches of railroad right-of-ways, throughout the country. Shiftless, happy-go-lucky fellows they were—readily identified as "wandering Willies," or members of the roving mendicant fraternity, by their makeshift hats, unkempt and usually unwashed stubble beards, ill-fitting patched trousers, nondescript coats, battered and tattered over-sized shoes, but, best of all, by the tools of their "trade," a tin can and bandana handkerchief bundle which they carried on the end of a short stick over the shoulders.

"Alas, poor Dusty Rhodes! I knew him well, Horatio!" moaned Denver Dutchy, a more or less retired veteran of the road, as he gently closed a grimy paper-bound edition of Emerson's Essays, which he had been reading for diversion while "beating it a division," several weeks ago in a box car from Pueblo to Denver, Colo., over the Colorado & Southern railroad. His traveling companion and confidante of the last three days, the reporter, a mere novice, whose experience as a hobo consisted of a trifling 23,000 miles covered at intervals during a period of four years, had asked for reminiscences of the old days when "box cars were box cars, and men were men," stirred by fond memories of the past, was visibly affected.

Bemoans Dear Old Days.

"Ah, will those dear days ever come again," he said almost sadly, shifting his weight as the train took a sharp curve and rumbled into a long, dark tunnel in the mountain side. When daylight again showed through the open door Dutchy continued: "I think not. The old thoroughbred tramp has passed, and the profession has petered out. Only in the comics do you see the tried and true tramp of yesterday."

"Tramp life is a different life now from what it was ten years ago. And what makes it different is this: The old-time tramp was on the road to do as little work as possible. When he needed a stake to hold him over the winter in the North there were plenty of jobs in almost any town where he could put in a few days' work and come clear with enough money to live for a few weeks. On the road he could always tackle a woodpile for some 'kind lady' and get fed. Then, again, the jungles in every town were always full of 'bobs' who had plenty of food they had bummed or had bought. 'Getting was easy in those days,' Dutchy went on. 'But now! There are several million men on the road—tramps and bums all—but they're not on the road because they want to be. Unemployment has put them there. Homeless, penniless and sometimes friendless, they are beating it from one town to another looking for work.'

Few Realize Hardships.

"People in the city with jobs don't know what a hobo is up against. For that matter few of them know what a hobo, in the true sense of the word, is. They don't know that a real hobo is a traveling workman who does some of the hardest and poorest paid labor in the United States. Who harvests the great grain crops of the Middle West each year? Hobos who drift in from all over the country harvest it. They also build the railroads, irrigation projects and other construction jobs; cut the timber in the often-lousy logging camps, harvest the ice crops, work in mines and oil fields, and perform other work that lasts for only a short time and which only the drift-

ers will tackle. A hobo will only bum when he is down and out and can't work out a meal."

Denver Dutchy said many other things. Subsequent investigation finds that he is correct. The hobo is a worker.

Conditions on the road are pitiful. In parts of the country where the unemployment situation is not critical the life is not so hard, but in portions where it is, as in the entire Southwest, many hobos are leading a life that is really worse than that of a hunted animal. Railroad detectives and special agents chase them off trains and out of railroad yards and the local police order them out of towns or arrest them for vagrancy.

Drastic Laws Against Them.

Many states, especially Texas, have drastic laws under which a man must serve from one to eleven months on road chain gangs if found guilty of vagrancy. This punishment has made many men bitter against the police and citizens of many cities, and agitators and agents of several radical organizations are using this fact as an argument toward enlisting hobos to their various causes. In the Northwest, posted at nearly every important freight division point, are representatives of the I. W. W. who solicit and often succeed in enrolling hobos for "red cards" on the strength of this argument alone. They hold the federal administration responsible in a large measure for national unemployment.

"Here's a land of plenty," they say. "You, a human being must wander through it starving, cold and tired with no place to lay your head. An alley cat or stray dog is better off than you are."

Few people realize what segregation of these two or three million idle men would mean. If there were not these hobos swarming in hordes over the railroads in every section of the Union, the unemployed permanent residents of most of the cities and towns would have less chance of getting positions. The city man should be thankful that there are hobos in times when work is plentiful.

Outlook Bad for 1922.

The outlook for 1922 is unfavorable, especially for the winter. With so many mines and mills shut down, and with the harvest season and construction jobs nearly over, it will not be long before several hundred thousand hobos will again have to "hit the road." Most old-timers predict a winter that will be worse than last year, one that brought much suffering.

Jails will have to be thrown open and winter quarters provided as well as bread lines formed.

Hobos everywhere advise youngsters not to try to beat their way anywhere

at present, especially riding "blind baggage" on passenger trains. Mail guards have shot and killed so many suspects that it is unsafe.

Besides these hardships, there are more severe ones that tax a man's endurance to the utmost. In some towns throughout the nation the restaurants and homes have been pestered so much by hungry men seeking work that several men have actually starved to death in them.—Ted Seelman in the Chicago Daily News.

NORTH POLE AVIATORS



Lieut. O. Omdal (above), Norwegian aviator, and Lieut. E. G. Pullerton (below), who are accompanying Capt. Roald Amundsen to the arctic regions and will be the pilots for the proposed airplane trip to the North pole.

Board Bill Too Heavy, Prisoner Is Released

Arthur States of Lima, O., literally ate his way out of prison, where he was serving a term because of his inability to pay a fine of \$1,000 on a liquor charge. He served only a few weeks when the county commissioners began figuring out results of the incarceration of States at a fixed amount a day to apply on his fine.

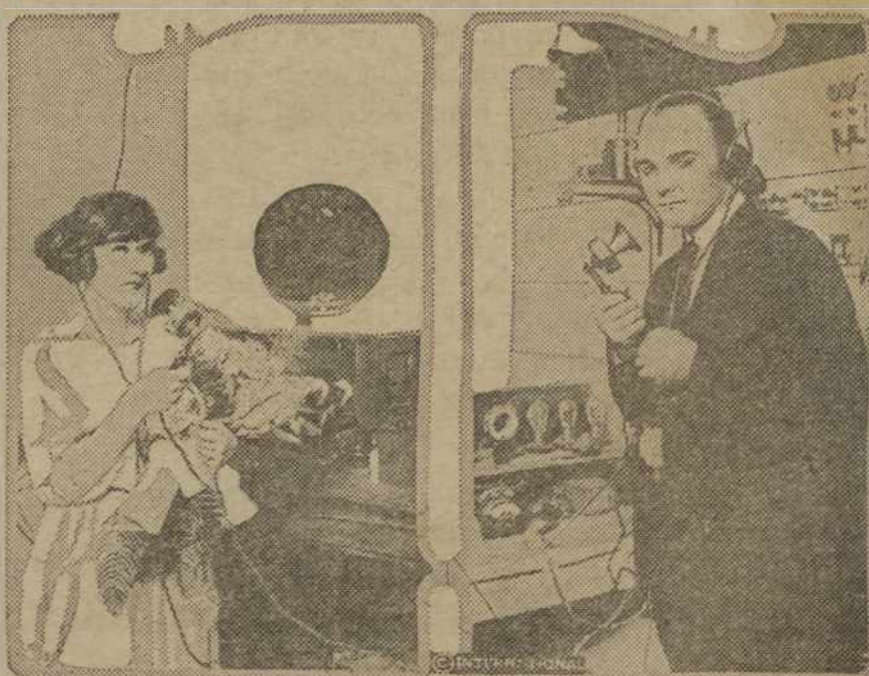
The board ordered him paroled with the understanding that he pay \$7 a month on the fine. Eleven years will be required to liquidate it. His board had already cost the county \$100. Commissioners figured that it would cost \$1,249.50 to collect the fine for the state had he remained in jail.

Mining Gold Close to Washington



Gold, real honest-to-goodness gold, is being mined within ten miles from the White House, Washington. In the deep ravine of Bull Neck run, back of the old Jackson place, in the heart of old Virginia, John G. Bodine leans over his pan and slowly washes precious yellow metal from the black sands. The property is all privately owned and in the vicinity is land which has been worked for thirty-five years for gold. It is said that Senator King and former Senator Lewis of Utah are interested in this project.

Dallas Has First Marriage by Radio



Miss Mable Brady, and John H. Stone, who were married via radio at different stations in Dallas, Tex. The minister who performed the ceremony was at a third station. The marriage vows were spoken by the minister, and repeated by the marital pair, via radio, the ceremony being capped by a kiss, also via radio.