

Correspondence.

Traps for Inventors.

To the Editor of the SCIENTIFIC AMERICAN :

It became my fortune, and I expect it will be my profit, to be enrolled as an "inventor" in the official record of the United States, through the intelligent efforts of the SCIENTIFIC AMERICAN Agency; and during the few months I have enjoyed this "immortalization," my experience has fully verified the statements in the modest circular that came with the patent papers from the SCIENTIFIC AMERICAN Agency, warning new inventors against the many sharks that represent themselves as patent sale agencies. I believe there are honest and efficient houses engaged in the sale of patents, but I feel more than satisfied that swarms of these agencies come within the letter and spirit of the SCIENTIFIC AMERICAN circular. I have just read your article headed "Traps for Inventors," and know that thousands of inventors will heartily say Amen! to it.

A long experience as a newspaper man had somewhat posted me up on the wiles of portions of humanity, and this, with your circular, may have made me over-cautious and a little too suspicious, and caused me to be a little too incredulous; but I think not. Without details I wish in this simply, as a sort of appendix to your article, to say to inventors that if they have anything meritorious, with ordinary push and legitimate facilities for reaching the ears of capitalists, adopted by sensible business men, their hopes can be realized. Fake advertising, and fake tours through the country in the interest of their deluded patrons, constitute the stock in trade of the class you warn the inventors against.

AN INVENTOR.

Lawrence, Kansas.

The Story of the Buffalo.

BY GEORGE ETHELBERG WALSH.

There may be a few wild buffaloes yet in the most inaccessible parts of the Far West, but, if so, their existence is not generally known, and hunters have repeatedly failed to find them. A floating paragraph in the Western newspapers occasionally mentions a hunter's encounter with one or two stray buffaloes, and the report is sufficient to call out every sportsman within a radius of several hundred miles. The nearer the species approach complete extermination, the more eagerly the lonely fugitives seem to be pursued to their death.

The herd in the Yellowstone Park, numbering probably four hundred, is the largest one known to exist in the wild state, and through careful protection these may be preserved for an indefinite time, although a part of them have recently been transferred to the national zoo at Washington, where they are better protected from the hunter's bullet than in their northwestern home.

But while the buffaloes have become nearly extinct on the Western ranges, there are quite a number of domesticated herds in this country, and experiments in cross breeding them with common cattle are being pursued with fair success. The first attempts to cross breed the buffaloes were made at Lexington, Kentucky, in 1815; but the existence of enormous herds of the wild animals on the plains at that time acted as a damper upon the enthusiasm of the early pioneers, and the work was soon abandoned. At that early date a buffalo robe commanded very little money, and, in fact, up to 1875 a bull robe was worth only \$1. In 1883 robes had advanced so that a good one would net the hunter \$3, while to-day the hide of a buffalo is worth \$100, and the mounted head of a bull anywhere from \$200 to \$500.

The incentive to raise and domesticate the buffalo is thus much greater than in 1815, and the few herds that are in existence are highly valued by their owners. There is a small herd in the Texas Pan Handle, numbering less than seventy-five, and a larger one at Ravalli, Montana, owned by Mr. Charles Allard, numbering nearly two hundred. This latter herd is the largest owned by any private individual. In 1893 the Jones herd, of Omaha, was purchased by Mr. Allard for \$18,000, and the thirty-one animals in it were transferred to the Montana ranch and joined with the others.

Besides breeding the pure buffaloes for museums and other stock farms, Mr. Allard has carried on extensive experiments in crossing the wild animals with the polled Angus stock. The cross breeds produced are magnificent animals, with fur that is finer and closer than that of the buffalo, and with meat that is very sweet and wholesome. Nearly all of the cross-bred animals retain much of the instinct of their wild progenitors. They are hardy and easily reared, and are able to stand storms that kill ordinary cattle.

Nature adapted the buffalo to the cold Northwestern plains, and they rarely succumbed to the blizzards that to-day destroy our domesticated cattle by the thousands. When the snow lies deep upon the ground in the dead of winter, the steers cannot paw through it to get at the natural hay of the plains, and they consequently die of starvation and cold. The buffaloes, accustomed to the fearful blizzards, bunch together in

a storm and form a wedge, facing the wind and snow, with the bulls outside and the cows and calves protected inside of the formidable line of shaggy heads. Thus a herd survives the wildest storm, and when the snow has ceased to fall they paw through the snow and ice and get at their favorite buffalo grass.

The cattle, on the contrary, are driven before the storm, and often wander from sixty to one hundred miles from their accustomed range, and, unless shelter is provided, they soon sink down exhausted. The horses turn their backs to the storm and likewise soon yield to the cold. The new cross breeds, possessing many of the hardy instincts of their wild progenitors, face the cold storms, and seem to survive the coldest blizzard without great injury to their health. They have been found to be almost as well adapted to occupy the vast plains as their wild ancestors, and if they do not degenerate under too close inbreeding, they may yet roam in as countless numbers as the buffaloes did before the ruthless slaughter of the hunters decimated their numbers.

There are many hunters living to-day in the West who killed from two to three thousand buffaloes a year, and during a period of ten years or more they pursued their deadly slaughter with fearful persistence. It seems like a fairy story to recall the scenes of destruction that were enacted in the seventies. When the Union Pacific, Atchison, Topeka and Santa Fe, and Southern Pacific were completed the demand for buffalo robes suddenly began, and the wholesale slaughter of the American bison entered upon its unprecedented career. Up to this time the wild animals were killed by the thousands by the old Indian method of "running," but this was nothing compared to the "still hunt" that succeeded it. There was a spice of danger in the old method that made it sportsmanlike, and rough and ready riders entered it as much for the pleasure of the chase as for the trophies. The buffalo horses were trained to run alongside of a big bull, and at short range the hunter would spear, lasso, or shoot the animal under conditions peculiarly exciting and dangerous.

The "pot hunter," however, provided with the new long range repeating rifles, approached within several hundred yards of a herd, and concealing himself from view, he deliberately shot down the leader. The frightened buffaloes then, instead of scampering away, gathered around their fallen leader, and acted like sheep in a snow storm, while the successive "pops" of the hunter's rifle dropped one after another. If another bull should assume the leadership of the startled herd, he was marked out as the next target for the hunter's rifle. Scores, and even a hundred or more, of buffaloes were killed in this way before the herd finally scampered away across the plains. One hunter confessed to having killed sixty-three animals in less than one hour, and Col. Dodge once counted one hundred and thirteen dead buffaloes inside a semicircle of two hundred yards, all the work of one man in forty-five minutes.

In 1870 there were millions of buffaloes on the plains, and the rate of extermination amounted to over half a million a year. The pot hunter received \$1 for each robe, and for this paltry sum he killed the animals by the thousands and left their carcasses bleaching on the plains. The Union Pacific Railroad cut the great herd on the plains in two, and after that they were known as the northern and southern herds. The southern herd in 1871 was estimated to number over four million animals, while the northern herd was considerably smaller, covering a more restricted territory, and moving rapidly away from the vicinity of the railroads.

When the Atchison, Topeka and Santa Fe Railroad was completed, the rush to the plains to kill buffaloes was almost as large and exciting as the famous travel to the California mines in the fifties. Thousands of Eastern hunters joined the throng, and the wanton killing of the southern herd proceeded at a rate never before witnessed in this or any other country. In 1873 one railroad carried from the plains 250,000 robes, 2,000,000 pounds of meat, and 300,000 pounds of bones. Two years later this vast southern herd was practically exterminated, and with the exception of a few thousand that escaped below the Pecos River, there was none left of the four millions which roamed the plains in 1870.

The northern herd escaped destruction so early on account of the lack of facilities to reach their grazing grounds. Isolated hunters continued to worry them, and to kill off a few thousands each year, but it was so expensive to get the robes to market that there was little incentive to wanton destruction. In 1882 the Northern Pacific Railroad furnished the transportation facilities needed, and then the rush began to the region between the valley of the Platte and the Great Slave Lake. The hide hunters were on the scene early, and as robes had advanced to \$3 apiece, the opportunities for making more money were good. In a short time a cordon of hunters' camps practically surrounded the herd on every side, so that it was impossible for any of the beasts to escape. Fully ten thousand hunters were in the field, and those on one side drove the frightened buffaloes toward the camps of those on the opposite

sides. Back and forth the animals were hunted, running directly into the muzzles of thousands of repeating rifles whichever way they turned.

The last of the immense herd, numbering about seventy-five thousand, crossed the Yellowstone a few miles from Fort Keogh, in 1883, bound for the Dominion of Canada; but a host of pot hunters were at their heels, and not more than five thousand of them ever crossed into British territory. A smaller part of the herd was located between the Black Hills and Bismarck in 1883, numbering about ten thousand early in the season, but by October their numbers had been cut down to twelve hundred. In that month Sitting Bull's Indians arrived at Standing Rock Agency, and a grand rush was made for the remnant of the noble band. The slaughter was so intense that in two days there was not a hoof left.

This was practically the last grand slaughter of the American buffalo. Hunters passed over in the Dominion of Canada, confident that great numbers had crossed the border, but they were disappointed in their expectations. Years passed, and no one had discovered any remnant of the vast northern herd. Here and there a dozen or two would be found roaming over the wildest portion of the West, and these were corralled by men who appreciated the value of the animals, and they became the founders of the present domesticated herds.

The American buffalo hunter has disappeared with the noble animal that he so wantonly slaughtered, and it is to be hoped that he will never again have occasion to practice his art in such a senseless crusade of destruction.

The story of the buffalo should end with the extermination of the northern herd in 1883, but under wise protection and fostering care it may be that another chapter is still to be written. The domesticated herds, meager though in numbers compared with those that once roamed the treeless Western plains, may yet become the founders of a stock that shall cover the vast, desolate stretches of territory which nature intended for them, redeeming the region from its present barren and profitless condition.

A small herd of twenty buffaloes is owned by the Island Improvement Company, and kept on Antelope Island, in the midst of the Great Salt Lake, where the animals have been grazing for three years in a semi-wild state. The island is thirty miles long and six miles wide, furnishing the animals with an ideal home where they are not interfered with by any one. The grasses on the island are rich and luxuriant, the natural watering places numerous, and the configuration of the surface rough and varied enough to suit the desires of the buffaloes. The animals seem to do well there, and during the present year four calves were born.

Census of the Unemployed in America.

A special report on the statistics of occupations has been made by Carroll D. Wright, of the Census Bureau, which throws some light upon the number of the unemployed in the country during an ordinarily prosperous year. The report shows that "There were 22,735,661 persons ten years of age and over who were engaged in gainful occupations in 1890, of whom 18,821,090 were males and 3,914,571 were females, and that of these 3,013,117 males and 510,613 females, or a total of 3,523,730 persons, were unemployed at their principal occupations during some part of the census year ending May 31, 1890. Of the whole number of persons so unemployed, 1,818,865 were unemployed from one to three months, 1,368,418 from four to six months, and 336,447 from seven to twelve months, which is equivalent to, approximately, 1,139,672 persons unemployed at their principal occupations for the entire twelve months, and this number would represent 5.01 per cent of the total number of persons engaged in gainful occupations in 1890. Divided as to sex, the approximate number of males unemployed at their principal occupation for the entire census year was 972,000, representing 5.16 per cent of the whole number of males at work, while the approximate number of females unemployed at their principal occupation during the same period was 167,672, representing 4.28 per cent of the whole number of females at work."

Movement of Nicaraguan Trade.

IMPORTS.			
	1889.	1892.	1895.
From the United States.....	\$141,385	\$135,357	\$79,083
Germany.....	8,769	15,536	36,645
Great Britain.....	42,197	32,739	36,252
France.....	13,907	5,434	7,183
EXPORTS.			
	1892.	1895.	
To the United States.....	\$426,085	\$214,404	
Germany.....	20,102	203,202	
Great Britain.....	114,673	52,881	
France.....	15,492	31,010	

The United States still occupy the first position among the nations with which Nicaragua trades, but Germany has made great gains, while the others have been losing, with the exception of France, who has doubled her imports from Nicaragua in three years.—Umland's Wochenschrift.