

Up to date only about 5,000 tons of bauxite has ever been shipped from Alabama. It has gone to Philadelphia and Natrona, Penn., and to Syracuse, Buffalo, and Brooklyn, N. Y., and to other places. It has been used principally for the manufacture of alum by the sulphuric acid method. The Alabama ores cannot be laid down in the above markets as cheaply as the Baux ores, and hence, if it was not for their superiority, they could not compete at all with the Baux ores. As it is, the profits are said to be small, and so it is not likely that the bauxite industry of Alabama will become very great until a home market is created for the ore. This, it is hoped, will soon be the case, as an aluminum plant is said to be now under way near Rome, Ga.

#### THE INTRODUCTION OF FOREIGN SPECIES.

BY JOHN GIFFORD.

NATURE maintains an equilibrium, and when this is interfered with by man evils ensue which are even more serious than the one he attempts to obviate. No man can predict the results of the introduction of an exotic animal or plant. Such a step should be attended with more study and caution than are usually exercised. One animal preys upon another to such an extent that by the introduction of other species the damage indirectly done is much more real than apparent.

When the cultivation of cane and the manufacture of sugar, molasses, and rum were at the height of their glory, the plantations of Jamaica were infested by rats. In order to rid the island of this pest the mongoose was introduced from India. In spite of the damage done to some of the domestic animals of the small property owners, the result was on the whole at first beneficial, since the prosperity of the island depended upon the products of the large plantations. Times changed, and the sugar industry faded. The negroes now have their own patches, and being favored by an indulgent Nature, with low ambitions and few wants, are forced to keep dogs to protect their poultry. They feel the loss of a pullet more than ever before. This class of people constitutes more than half the population. The mongoose has been increasing, and other small animals in consequence decreasing. Snakes are now extremely scarce, and many of the birds which nest on the ground have been destroyed. This animal inhabits both the lowlands and mountains, so that rats and mice take refuge in banana bunches, where they often build their nests. But these are only the direct consequences. Animals upon which this animal preyed fed upon other animals, especially insects. These have increased accordingly. Tics, for instance, which they say were introduced on South American cattle, have become an awful pest. There was no enemy to subject them, and only those who have walked through the beautiful pastures of this island, shaded with pimento and ceiba trees, can judge of their abundance. In crossing a pasture your legs become covered with these parasites, which, unless removed at once, bury in the flesh and cause much pain. While botanizing in the region of Mandeville, in the mountains, after each excursion the writer was forced to undergo a tedious operation: it was to have these tics picked out of the skin by negro boys, who have become expert by long practice, and many are the sixpences they have thus earned.

Out of revenge the Indians introduced the fer-de-lance, the ugliest and deadliest of reptiles, into Martinique and other West Indian islands. This snake increases rapidly in numbers, and many are its victims yearly. By the thickness of its skin the pig, and by its agility the cat, alone withstand this animal. Thus what they failed to do in war the Indians accomplished by a peculiar stratagem.

The abominable life-plant was introduced, perhaps as a curiosity, into certain parts of the West Indies. It has become a troublesome weed. It is impossible to combat or exterminate it. It grows in spite of you. Cut it up as you like, and it will sprout. Pull it up and hang it in a dry place or put it in your pocket, and from every indentation on the edges of its leaves there will come a sprout.

Every visitor to Nassau knows of the Giant Ceiba, with its far-reaching branches and curious buttresses on the public plaza.

This was planted by John Miller, and its history is of interest in showing how accidentally and rapidly the introduction of a species may be effected. He was a sea-captain, and traded to Brazil. He admired the ceibas so much that he brought home a seed or sprout to plant in his garden in one of our southern cities. He was a Loyalist; and when the War of the Revolution began he went to Nassau with his ceiba tree. This is the tree to which I refer — a tree many times photographed and described, the object of much admiration and the pride of Nassau. From the seeds of this others have come until now it is one of the commonest trees of the Bahamas. Thus animals and plants of benefit and detriment to a country have been almost everywhere accidentally introduced. In spite of warnings, grape-cuttings were introduced from America into Europe, and with them went the diseases of our vine with serious consequences. No matter how beneficial the introduction of a foreign species may at first appear, a sort of quarantine should be established, the government alone taking it in hand, introducing species only, after much study, with much caution.

New Orleans, Nov. 5.

#### PALÆOLITHIC MAN IN THE SOUTHERN PORTION OF THE DELAWARE VALLEY.

BY DR. HILBORNE T. CRESSON, PHILADELPHIA, PENN.

THE revival of the old feud in regard to palæolithic man is certainly a most interesting one, and I fully concur with my friend, Professor G. Frederick Wright, that "full discussion will dispel the uncertainty that may exist."

A great deal has been said about the finds in the Wilmington gravels (Columbian of McGee), and I notice that for some inexplicable reason the finds of others than myself have been ignored. I will give, presently, a brief *résumé* of the finds in supposed Columbian deposits, but before doing so it may be well to explain that I am not a professed geologist, but I do claim to have had the opportunity, by reason of a residence of twenty years in the vicinity of Wilmington, to study the aqueous deposits in that vicinity, and at times, in company with those who are authorities upon the subject. I take pleasure in quoting the names of Professors McGee and Wright and the late Professor Lewis. Messrs. McGee and Wright visited the Wilmington gravels at my request, and the former gentleman was accompanied by so distinguished an archaeologist as Mr. W. H. Holmes of the U. S. Bureau of Ethnology. It was my good fortune to meet Professor Lewis at Claymont, during visits that he made to relatives who lived in a property adjoining my father's, and in these, our youthful days, we made many excursions over the gravels and brick clays which now bear his name. As Dr. Abbott suggests, in a recent publication in *Science*, "When I find gravel stratified and unstratified, I know and assert the difference," and it may be suggested, without conceit, that those who have spent years in studying glacial deposits, and searching among them for evidences of primitive man, aided at times by suggestions from the full-fledged geologist, ought to have some slight development of the perceptive faculty, in this respect, and be able to judge whether the condition of the gravels, in question, was disturbed or undisturbed, as the case may be.

During Professor McGee's visit to the Wilmington gravels (I have designated them thus, as Carpenter Station, on the Baltimore & Ohio Railroad, is but a few miles distant from this place), Mr. Holmes found what is now called, at the Peabody Museum, Harvard University, "the Holmes Palæolith." It is a piece of white quartz, bearing, according to the opinion of Professor Putnam, Dr. Abbott, Professor Wright, and Professor Wilson, evidences of artificial fracture. When the quartz in question was found by Mr. Holmes, I requested Professor McGee to examine the place from which it had been taken. He pronounced it to have been found in undisturbed Columbian deposits, but I here call especial attention to the fact that neither Holmes nor McGee deem the implement in question to be artificial. The palæolith was then submitted to Dr. D. G. Brinton for examination, who also condemned it. There is this to be said, however, that when