

AN INTERESTING MARMOSET.

We select, from the pages of the *Illustrated Sporting and Dramatic News*, the accompanying engraving of a recent arrival at the world-renowned Zoological Gardens, situated in the Regent's Park. The look of intelligence and docility on his countenance much resembles that seen on the face of a King Charles' spaniel; but his feet and claws are evidently made for mischief, and he is not therefore suited for a domestic pet, although his dimensions (the engraving is of the size of life) adapt him to be carried in the vest pocket or attached as a pendant to a watch chain.

The marmoset is a South American monkey, much resembling a squirrel in form and agility; and the *marikiva*, or silky marmoset, is of a golden yellow color, its fur being very soft and of the color of raw silk, deepening in shade on the paws. It is, in its natural state, very clean in its habits; and if not properly attended to when in captivity, it pines away and dies. Its usual voice is gentle, but it hisses loudly when irritated. The *leoncito*, or leonine marmoset, is endowed with a mane of considerable proportions, which it erects when angry. It is the smallest known animal of the monkey tribe.

Preservation of Aqueous Tartaric Acid Solutions.

One of the chief objections to the use of tartaric acid as a reagent or in alkalimetry is the readiness with which its aqueous solutions decompose. The detection of potash in solution is difficult, owing to the solubility of all its neutral and most of its other salts. The acid tartrate of potash is soluble in 200 parts of cold water, while the double chloride of platinum and potassium dissolves in 140 parts cold water; hence tartaric acid is a more delicate test than chloride of platinum. Professor Wittstein announces the discovery of an easy method of preventing decomposition in the use of salicylic acid. A freshly prepared solution of 1 part tartaric acid in 5 parts water, has added to it about $\frac{1}{1000}$ part salicylic acid. In an unprotected solution of tartaric acid, the well known flocks appear in two weeks; while a relatively small quantity of salicylic acid has kept a solution pure and clear for three months, and may, he expects, preserve it unaltered for a year or more, a question which can only be settled by time. Dr. Wittstein claims also that tartaric acid solutions may be used in alkalimetry, as the amount of acid does not change for a year even when these slimy flocks form in the solution. We see, however, no reason to prefer this acid to the more permanent oxalic acid, when an organic acid is desired for a normal acid solution.

AN ARTIFICIAL MAMMOTH.

M. Martin, a German naturalist, has recently constructed artificially a mammoth (*elephas primigenius*) of the quarterary epoch, after the many fine fossils of that extinct animal now existing in the Natural History Museum of Stuttgart. The form of the body of the gigantic creature, its trunk, tusks, and hair (the latter a close imitation of that of the real animal found in the Siberian ice) have been wonderfully counterfeited, so that the resemblance is as accurate as if the mammoth's skin had been stuffed. The animal, a representation of which is given in the annexed engraving from *La Nature*, measures 16 feet in height by nearly 26 feet in length. It is made upon a wooden framework, covered with wire cloth, the latter being coated with *papier maché*. The hair is reproduced from the fiber of an Indian palm, the tusks are of wood, and the trunk is ingeniously made of paper.

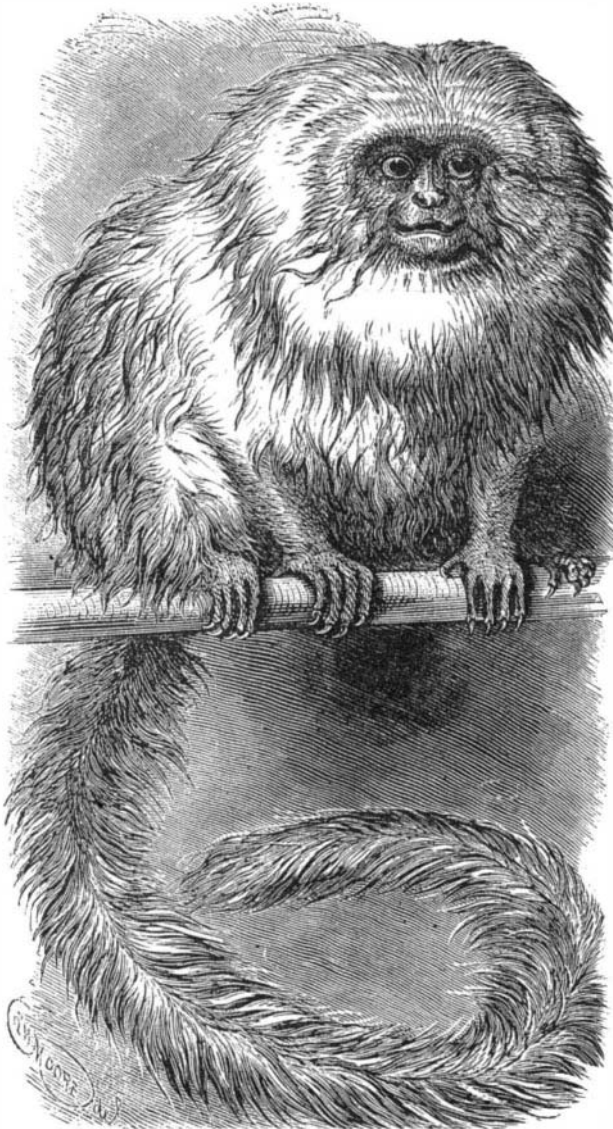
We are glad to notice that this valuable work has been purchased by Professor H. A. Ward for his Museum of Zoology and Comparative Anatomy in Rochester, N. Y. It has already been packed, and is now on its way to this country.

Coating Metals with Platinum.

A Frenchman named Dodé recommends the following process for coating cast iron, whether rough or enameled, with platinum: The metallic articles are first moistened by means of a brush dipped in oil of turpentine, then immersed in a mixture of borate of lead and oxide of copper, and baked in an oven. When thus prepared, they are dipped into a mixture of borate of lead, litharge (or massicot), chloride of platinum, ordinary ether, oil of lavender, and amylic ether, and then heated.

New Method of Manufacture of Steel Armor Plates and Blocks.

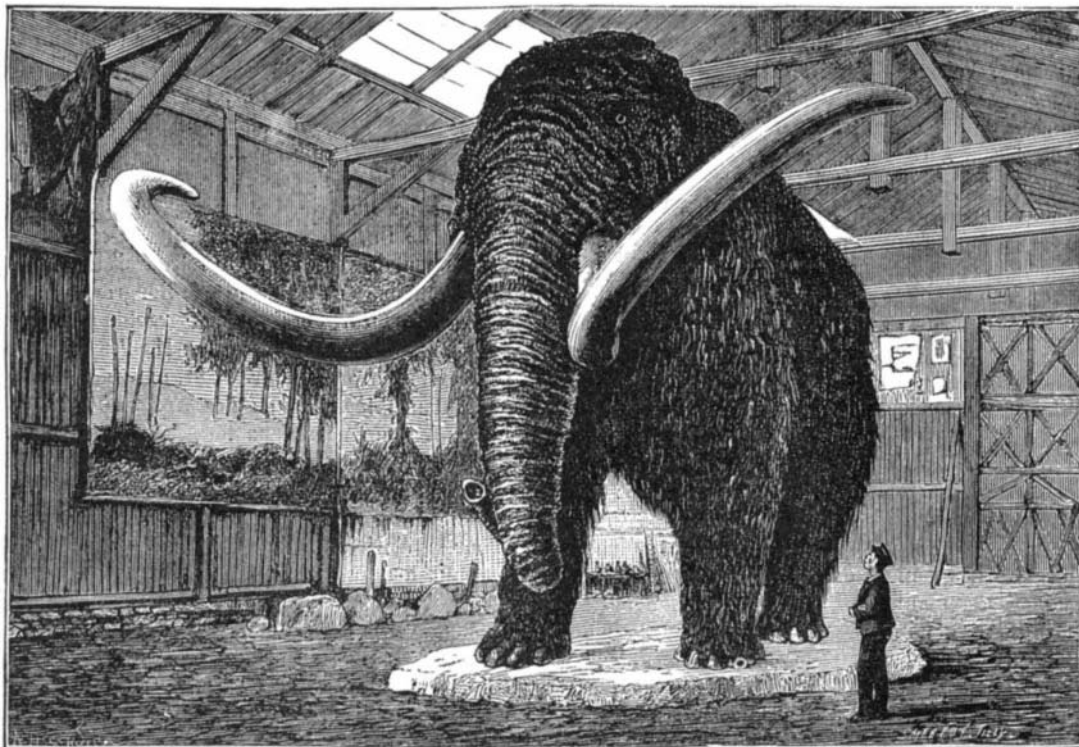
The trials of the 100 ton gun at Spezia resulted in some remarkable deductions in favor of steel armor, and it now



MARMOSET AT THE ZOOLOGICAL GARDENS, LONDON.

appears probable that steel plates will supplant iron in the armament of war vessels. Mr. James Yates, of Rotherham, England, has patented, March 13, 1877, a new process of making steel blocks for armor purposes, which is as follows:

Molten steel of one temper or hardness is run into an open or closed mould, and then upon its upper surface a second layer of molten steel of another temper or hardness is added. Its operation is repeated so as to form as many strata of a



M. MARTIN'S ARTIFICIAL MAMMOTH.

different tempered steel as may be desired, arranged according to their temper or hardness, forming thereby one solid and compact compound mass. This may be either at once ured or be stamped, rolled, or pressed, to give the form required, and to impart strength to bear greater pressure or strain tensibly, compressively, or by impact from projectiles or heavy blows. The molten steel, of varying temper and hardness, is successively poured into the mould before the preceding stratum is cold.

A TUNNEL under the Pyrenees, uniting France and Spain, will be opened at the beginning of next year.

The Tern.

Mr. Thomas Edward, the Scotch naturalist whose pursuit of Science amid toil and privation has gained him such just renown, writes as follows concerning the tern. He was, one afternoon in August, watching the evolutions of a flock of these birds, which were engaged in fishing in the Firth of Boyndie. He was seeking an opportunity to bag one of the beautiful creatures, when, as if in answer to his desire, a noble specimen directed its course to the shore, fishing all the way as it came.

"Once more he soars aloft on lively wing, and, having attained a certain elevation, and hovering, kestrel-like, for a little, with quick repeated strokes of his pinions he rapidly descends. Again, however, his hoped-for victim has made his escape; and he bounds away in an oblique direction, describing a beautiful curve as he rises without touching the water. Shortly after he wings his way nearer and nearer to the beach; onward he advances with zig-zag flight, when suddenly, as if struck down with an unseen hand, he drops in the water within about thirty yards of the place where I am standing. As he righted and sat on the bosom of the deep, I was enabled distinctly to perceive that he held in his bill a little scaly captive, which he had snatched from its home, which struggled violently to regain its liberty. Its struggles were in vain; a few squeezes from the mandibles of the bird put an end to its existence.

"Being now within my reach, I stood prepared for the moment when he should again rise. This he did as soon as the fish was dispatched. I fired, and he came down with a broken wing, screaming as he fell into the water. The report of the gun, together with his cries, brought together the party he had left, that they might ascertain the cause of the alarm. After surveying their wounded brother round and round, as he was drifting unwittingly toward the shore with the flowing tide, they came flying in a body to the spot where I stood, and rent the air with their screams. These they continued to utter, regardless of their individual safety, until I began to make preparations for receiving the approaching bird. I could already see that it was a beautiful specimen; and I expected in a few moments to have it in my possession, being not very far from the water's edge.

"While matters were in position, I beheld, to my astonishment and surprise, two of the terns take hold of their wounded and disabled comrade, one at wing, lift him out of the water, and bear him out seaward. They were followed by two other birds. After being carried six or seven yards, he was left gently down again, when he was taken up in a similar manner by the two who had been hitherto inactive. In this way they continued to carry him alternately, until they had conveyed him to a rock at a considerable distance, upon which they landed him safely. Having recovered my self-possession, I made towards the rock, wishing to obtain the prize which had been so unceremoniously snatched from my grasp. I was observed, however, by the terns, and, instead of four, I had in a short time a whole swarm about me. On my near approach to the rock, I once more beheld two of them take hold of the wounded bird as they had done already, and bear him out to sea in triumph, far beyond my reach. This, had I been so inclined, I could no doubt have prevented. Under the circumstances, however, my feelings would not permit me; and I willingly allowed them to perform without molestation an act of mercy, and to exhibit an instance of affection which man himself need not be ashamed to imitate. I was, indeed, rejoiced at the disappointment which they had occasioned, for they had thereby rendered me the witness of a scene which I could scarcely have believed, and which no length of time will efface from my recollection."

Do Snakes Catch Fish?

Mr. J. Y. Detwiler, of Toledo, Ohio, states that, on May 20 last, he killed a water snake in a small brook, which, when opened, was found to contain a fish, about 6 inches long, partly digested. He also has caught water snakes on trout lines baited with minnows; and he once caused a water snake to disgorge a fish about 8 inches long.

Yield of Wine in France.

The wine crop of France in 1876 was only 41,846,748 hectoliters (a hectoliter = 22 gallons), as compared with a yield of 83,836,391 hectoliters, or more than twice the quantity in 1875. The disease of the vines has caused this unfavorable result.