

NATURAL HISTORY.

THE HARPY EAGLE.

This noble bird, the most magnificent of the Eagle tribe, is distinguished from the other Eagles by the shortness of its wings, the extreme robustness of its legs, and the more than ordinary curvature of its beak and talons. Its upper mandible is remarkably thick at the base, from whence it is continued for some distance in a straight line but suddenly curves downwards with a strong arch toward the point, which is extremely sharp; the lower mandible is straight, short and obtuse; the nostrils are transverse and oval; the wings do not reach when closed beyond the middle of the tail, which is rounded at the extremity; the legs are only partially feathered, on the upper part of their anterior surface, the remaining portion being naked and articulated; and the talons are excessively powerful, the internal and the posterior in particular, attaining an almost disproportionate length.

The Harpy is so bold, according to Hernandez, that it does not scruple to attack the most ferocious beasts and even man himself; but this attribute is probably as much exaggerated as its docility, when he adds that he may be tamed and trained to hawk as readily as the rest of the accipitrine tribe. He states also that it is quarrelsome, sullen, and fierce, and preys not merely upon birds, but upon hares, and other similar animals. Linnæus adds to this account, probably on the report of the keepers of the Spanish Menagerie, that it is capable of splitting a man's skull with a single blow of its beak. Maudslayi states that he had been informed by travellers that it commonly feeds upon the two species of sloth which are found in the forests of Guiana, and carries off in its talons fawns and other young quadrupeds. These details are confirmed by Sounini, who describes it as living perfectly solitary in the depth and darkness of the thickest forests, where of course it is seldom disturbed by the prying eye of curiosity. He himself observed it perched upon a lofty tree on the banks of the Orassu, where it seemed altogether motionless, and uttered no cry. His shot having only broken the wing, he fastened it by one leg to his boat, in which position it remained for several days, displaying no symptoms of mischievousness, but constantly refusing all kinds of food. This was the specimen called by him *Aigle Destructeur*. Of the Grand Aigle de la Guiana he met with only three individuals in the course of his journeys in the interior, and was the first to make them known in the colony, where they had never been seen before.

These scattered notices comprise all that is known of its history in its natural state. In captivity there is little to distinguish its manners from those of the other birds of its tribe. An individual taken from the nest, in possession of the elder Jacquin, became so tame as to suffer its head to be handled and scratched; but unfortunately this specimen was found dead on its passage to Europe, having fallen a victim, as was supposed, to the vengeance of the sailors, whose monkeys it had destroyed. These animals in their gambols unconsciously approached too near its cage, and were seized by its powerful talons, it devoured all of them with almost all their bones, but not without skinning them, an operation which it uniformly performed previously to consigning them to its maw.

THE OX.—The ox is about as large as the horse, though he is not quite as tall; his form is more bulky, especially about the neck and head. The ox is a very useful animal, being employed in most all countries for draught. In this Province he is used more particularly for drawing carts, and for other labor, by the farmers, about their farms. This animal's flesh makes the very best of beef.

THE COW.—The Cow may be placed at the head of all quadrupeds for usefulness to man. There is no part of the cow but what is of some use. Her milk constitutes one of the most important articles of food. Her flesh makes excellent beef; of her horns are made combs, knife handles, &c.; of her skin is made leather; and from the cow we get the matter, for kine pock inoculation, an excellent preventive of the small pox. Her blood is used in a great variety of ways; of her hoofs we make glue.

COMMON THINGS.

No. 3.—ACIDS.

One acid is more common than any other. It is even one of the most common things in the world. It is found in the atmosphere at all times, and in all places.

Being nearly twice as heavy as common air, it settles in low places, such as wells, caves, &c. It is also combined with some rocks, especially limestone, and many minerals.

This most common of acids is constantly forming by several processes of nature, and in great abundance. Indeed the whole animal kingdom are constantly producing it in the process of respiration. It is also formed wherever combustion is going on, such as the burning of the common fire, lamps, candles, &c.

Fermentation also produces it, and sometimes in great abundance. Whenever bread, yeast, wine, beer, cider molasses or any substance undergoes the least fermentation, the result is an acid in the form of air, which is as extensive and common as the atmospheric air.

It is this acid that gives the life and sparkling to bottled cider, beer, soda water, and many other liquids used as beverages. It is the loss of this acid that renders, beer, cider, wine, &c. dead, as it is termed.

Though this acid of which we are speaking is healthful and invigorating when taken into the stomach, it has many times proved fatal to life, when taken into the lungs. Persons descending into wells or other low places, where it has taken possession, have frequently dropt lifeless. In some instances persons have instantly lost their lives, by descending into a fermenting vat in a brewery, or distillery, after being emptied of the substance fermented, the acid produced in the fermentation still keeping possession and filling the vat. The burning of coal in a pan, or a common portable furnace confined in a tight room, has frequently produced so much of this acid as to destroy life. It is always produced in such quantities in the burning of coal, as to be hurtful, if not dangerous, to be confined in a room where it is burning, unless the room has a chimney or some other ventilation to displace the bad air, and supply the good.

The manufacturers of soda water form this acid by pouring oil of vitriol upon pulverized marble, which is discharged from the lime or marble in the form of bubbles, which chemists call effervescing. They then combine it with water, in which soda has been dissolved, by a forcing pump. The pressure thus created by it is frequently so great as to burst casks strongly hooped and barred.

Though this is the most common, it is the weakest among the acids; and hence when vinegar, oil of vitriol, (sulphuric acid,) or almost any other acid, is poured upon lime, pearlash, or saleratus, ashes, and many other substances containing this, it produces an effervescence, by which it is discharged, and gives place to the other and stronger acid.

This very common thing, of which we are speaking, is composed of oxygen, which signifies *acid maker*, and carbon, which gives it the name of *carbonic acid*.

Vinegar, next to carbonic acid, is the most common among the numerous acids, and can be formed from any substance capable of being fermented. Wine, cider, molasses, the juice of the sugar cane, and the