

grinations through the elevated regions of air. There are animals, as the swallow, for instance, to which flight is so easy that they seem to make sport of it. A passive force further assists their suspension in the plains of the atmosphere; air, rarefied by the warmth of the body, penetrates into all its cavities and even to the interior of the bones. Rendered thus specially lighter, like balloons filled with warm gas, they float without effort amid the clouds. Such is the daring flight of those condors which launched themselves from the frozen summits of the Andes toward the sky, and soon disappeared from the sight of M. d'Orbigny, without one's being able to explain how they could breathe so rarefied an atmosphere.

The bird, though endowed with such a slight frame, nevertheless surpasses in strength the ponderous engines which glide along our railroads. Its vessels and fibres, notwithstanding their wonderful delicacy, work and resist more energetically than our heavy wheel-work and cast-iron tubes; in the one is seen the finger of God, in the other only the genius of man! Launched like an arrow into space, the bird, playing the while, silently clears twenty leagues an hour. A locomotive going at high pressure, enveloped in fire and smoke, attains the same speed only by consuming heaps of coke and water amid the infernal uproar of its wheels and pistons.

According to Sir Hans Sloane, the sea-mews which nestle on the rocks of Barbadoes take every day a journey over the sea of one hundred and thirty leagues, to amuse themselves and seek for food on a distant island,—the industry of the animal thus excelling that of man.

The migrations of certain birds are understood; we know whence they start, where they halt, and where they end their journey. Thus, for instance, in autumn, bands of quails,

which are emigrating, constantly arrive exhausted at the island of Malta, where they meet with fatal hospitality. They are taken in swarms in the streets of the town and on the roads, and as the inhabitants cannot consume the whole of this living harvest, it is sent to distant markets. The deck of the ship in which I left the harbor was laden with them.

During one of my wanderings across the Mediterranean, some strayed swallows happened, when we were midway between the two coasts, to fall totally exhausted on the deck of the frigate which was carrying me toward Africa. Every one on board, soldiers and sailors, overwhelmed them with attentions, which they received without exhibiting signs of fear. When they had at last recovered from their fatigues, they recommenced their journey toward the high regions of Senegal, and perchance rested beneath the cabins of savages long ere we had greeted the ports of Algeria.

But after long and perilous journeys these charming visitors of our dwellings return each year with touching fidelity to find their old domicile again. If the rains and winds have injured it, the architects quickly repair it before making it witness of their loves. Spallanzani has even noticed that the feathered couples become strongly attached to their particular nests. Having fixed parti-colored ribbons to the feet of some of them, he recognized them the year after, when they came to take possession again. He saw them return thus for eighteen successive summers. How many among us never enjoy such a long tenancy!

Less remarkable for the instinct which guides them than for the innumerable multitude of their army, the passenger pigeons traverse the forests of America in such compact masses that they absolutely intercept the rays of the sun, and cast a long track of