

larger and thicker on the ground. The grass-seed being sown in April, the advantages are derived that have been mentioned, as arising from laying the dung on the surface of the ground. This casual experience confirmed the mode now recommended, of applying farm-yard dung, and it destroyed in no small degree the theory of damage to farm-yard dung by evaporation from exposure. This theory has been very justly doubted, though conviction requires a length of time to be entertained. There is also called into question the fermentation of dung in heaps, and the fresh condition showed greater, at least equal results.

J. D.

JOHN JAMES AUDUBON, THE ORNITHOLOGIST.

There is not an American name more extensively known throughout the civilized world, nor one for which a higher respect is cherished among men of learning and science, than that of the distinguished Ornithologist Audubon, whose birth occurred on the 4th of May, 1780, in the city of New Orleans. His parents were French, and being blessed with the means, sent their boy to Paris to acquire his education in the best schools of that gay metropolis. After spending eight or ten years abroad, he returned to his native country, as the proper field in which to pursue those studies for which he had already acquired an over-mastering passion.

Ornithology and Entomology had long attracted the attention of young Audubon, and before he returned to America he had made considerable proficiency in these sciences, although the field of his observations was extremely narrow and unsatisfactory; but now his scope was unbounded and the material ample, and he resolved to give it a thorough investigation. As soon as he could put himself in a state of readiness, he commenced those indefatigable and hazardous labours which ended only with his life, and which have crowned his name with an imperishable halo of glory.

Audubon was one of the earliest pioneers of the Great West, and with knapsack slung, and his rifle, and net, and snares in his hand, he made the longest journeys across the broad prairies, and through the wide bottoms, counting no labour lost, and no hardship of any account, so that he could bag a new bird or insect. As early as 1810, we find him sailing down the upper Mississippi in a birch canoe, with his wife and one child, who shared his perils and his joy.

From that period his career was one of adventure, romantic incident and varied fortune. Hardly a region in the United States was left unvisited by his presence; and the most inaccessible haunts of Nature were disturbed by this adventurous and indefatigable Ornithologist, to whom a new discovery or a fresh experience, was only the incentive to greater ardour, and further efforts in his favourite department of science.

It was many years subsequent to this period that Audubon conceived the noble project of giving to the world a perfect history of all the feathered race in the United States. His project was on a scale commensurate with the magnificence of the subject, and was not completed until after a quarter of a century's hard labour. Without funds, and with but the promise of some patronage, he set himself to this great work of his life with more zeal and cheerfulness than he would have done to the acquisition of a fortune—counting no labour too much, and no pains or cost too great, so that he might gain one step in his great purpose. Those whose good fortune it was to become acquainted with him at this time, describe him as a man of marked appearance, original in his character, of childlike demeanour, entirely free from that savageness of manner so natural to one whose days are spent in the wilderness. Yet there was a fire in his piercing eye, and a spirit in his striking brow and erect mein, which evinced an unconquerable energy of purpose, and gave warrant of success in all the great plans of his life.

In 1824 he went to England, where, though unknown, and, at first, friendless, he soon became "the admired of all admirers." Says the *American Phrenological Journal*, "Men of genius—the Wilsons, the Roscoes, the Swainsons, recognized his lofty claims; learned societies extended to him the warm and willing hand of friendship; the houses of the nobility were opened to him; wherever he went, the solitary, unfriended American woodsman was the conspicuous object of a wide remark and love." In 1831, at Edinburgh he put forth his first volume of Ornithological Biography. The striking superiority of this soon procured him subscribers for the remainder of the work. In