ART. XX.—*Ornithichnology.—Description of the Foot marks of Birds, (Ornithichnites) on new Red Sandstone in Massachusetts;* by Prof. EDWARD HITCHCOCK of Amherst College.

THE almost entire absence of birds from the organic remains found in the rocks, has been to geologists a matter of some surprise. Up to a very recent date, I am not aware that any certain examples of these animals in a fossil state have been discovered, except the nine or ten specimens found by Cuvier, in the tertiary gypsum beds near Paris. In the third volume (third edition) of his *Ossemens Fossiles*,* he has examined all the cases of fossil birds reported by previous writers, and he regards them, nearly all, as deserving little credit.

For this paucity of ornitholites, geologists have, indeed, assigned probable reasons, derived from the structure and habits of birds. These render them less liable, than quadrupeds and other animals, to be submerged beneath the waters, so as to be preserved in aqueous deposites; and even when they chance to perish in the water, they float so long upon the surface, as to be most certainly discovered, and devoured by rapacious animals.†

But although these circumstances satisfactorily explain the fact, above referred to, they do not render the geologist less solicitous to discover any relics of the feathered tribe, that may be found in the fossiliferous rocks: and I have, therefore, been much gratified by some unexpected disclosures of this sort, during the past summer, in the new red sandstone formation on the banks of Connecticut river, in Massachusetts.

My attention was first called to the subject by Dr. James Deane of Greenfield; who sent me some casts‡ of impressions, on a red micaceous sandstone, brought from the south part of Montague, for flagging stones. Through the liberality of the same gentleman, I soon after obtained the specimens themselves, from which the casts were taken; and they are now deposited in the cabinet of Amherst College. They consist of two slabs, about forty inches square, originally united face to face; but on separation, presenting four

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* P. 302. † Lyell's Geology, Vol. II, p. 246, first edition.

‡ The editor of this Journal was early indebted to Dr. Deane, for similar casts of these tracks.