

sides are thicker and very different materials are used. In such cases, as was formerly remarked with respect to corporeal structures, a great and *apparently* abrupt change might be effected in the instinct of a bird by one form alone of the nest being retained.

In some cases, when the same species ranges into a different climate, the nest differs; the *Artamus sordidus* in Tasmania builds a larger, more compact, and neater nest, than in Australia (Gould's "Birds of Australia"). The *Sterna minuta*, according to Audubon ("Anns. of Nat. Hist.," vol. ii, 1839, p. 462), in the southern and middle U. States merely scoops a slight hollow in the sand; "but on the coast of Labrador it makes a very snug nest, formed of dry moss, well matted together and nearly as large as that of the *Turdus migratorius*." Those individuals of *Icterus Baltimore* (Peabody in "Boston Journ. of Nat. Hist.," vol. iii, p. 97) "which build in the south make their nests of light moss, which allows the air to pass through, and complete it without lining; while in the cool climate of New England they make their nests of soft substances closely woven with a warm lining."

Habitations of Mammals.—On this head I shall make but few remarks, having said so much on the nests of Birds. The buildings erected by the Beaver have long been celebrated; but we see one step by which its wonderful instincts might have been perfected, in the simpler house of an allied animal, the Musk Rat (*Fiber zibethicus*) which, however, Hearne* says is something like that of the Beaver. The solitary Beavers of Europe do not practise, or have lost the greater part of their constructive instincts. Certain species of Rats now uniformly inhabit the roofs of houses,† but other species keep to hollow trees—a change analogous to that in swallows. Dr. Andrew Smith informs me that in the uninhabited parts of S. Africa the hyænas do not live in burrows, whilst in the inhabited and disturbed parts they do.‡ Several mammals and birds usually inhabit burrows made by other species, but when such do not exist, they excavate their own habitations.§

In the genus *Osmia*, one of the Bee family, the several species not only offer the most remarkable differences, as described by Mr. F. Smith|| in their instincts; but the individuals of the same species vary to an unusual degree in this respect; thus illustrating the rule, which certainly seems to

* *Hearne's Travels*, p. 380. Hearne has given the best description (pp. 227–236) ever published of the habits of the Beaver.

† Rev. L. Jenyns in *Linn. Trans.*, vol. xvi, p. 166.

‡ A case sometimes quoted of Hares having made burrows in an exposed situation (*Anns. of Nat. Hist.*, vol. v, p. 362), seems to me to require verification: were not the old rabbit-burrows used?

§ *Zoology of the Voyage of the Beagle*, "Mammalia," p. 90.

|| *Catalogue of British Hymenoptera*, 1855, p. 158.