

The Romance of Bird Life.

MR. ARTHUR BROOK has made a welcome addition to the "British Birds" Photographic Series; he deals skilfully with the buzzard at home, and gives us twelve fine pictures.¹ During the last three or four years the buzzard has increased markedly in central Wales. It builds upon trees and in cliffs, or even amongst heather and rushes, and an inaccessible nest is

of the mountain ash. The cock did all the hunting, usually bringing his booty to the hen, who sat on a knoll near the nest. She carried the food to the young ones in her beak or talons. Occasionally the cock brought the food to the nest himself. The hen decorated the nest daily with fresh leaves, and she also brought tufts of mountain grass on which the young ones cleaned their beaks. One day the booty included four young wild ducks, about two days old, and one of these was swallowed whole. If food is scarce the stronger of the two young buzzards will kill its weaker companion. The observer saw the young birds practising flight and playing with the food. He captured one that flew off too soon, and replaced it in the nest, whence in the afternoon of the same day it took wing successfully. The buzzard is said to be a coward, but when the cock bird discovered Mr. Brook leaving the "hide" it showed great courage, making disconcerting swoops at a high velocity, and following him closely for quite two miles.

With an inexpensive little Kodak, and often in bad weather conditions, Miss Hilda Terras has managed to give us a score of very presentable and interesting pictures of various events in the history of a cuckoo's egg in a hedge-sparrow's nest.² She had this good luck, however, that the cuckoo was obliging enough to put the egg in question into a nest almost on the doorstep of the observer's home. Only a true amateur—we use the word very discriminatingly—could have such luck. The hedge-sparrow made for the prospecting cuckoo like a little demon; nesting birds have a highly developed sense of "territory," or is there more—of home-stead? The cuckoo persisted; there was a cessation of hostilities; at an urgent moment circumstances were opportune; the cuckoo flew on to the hedge

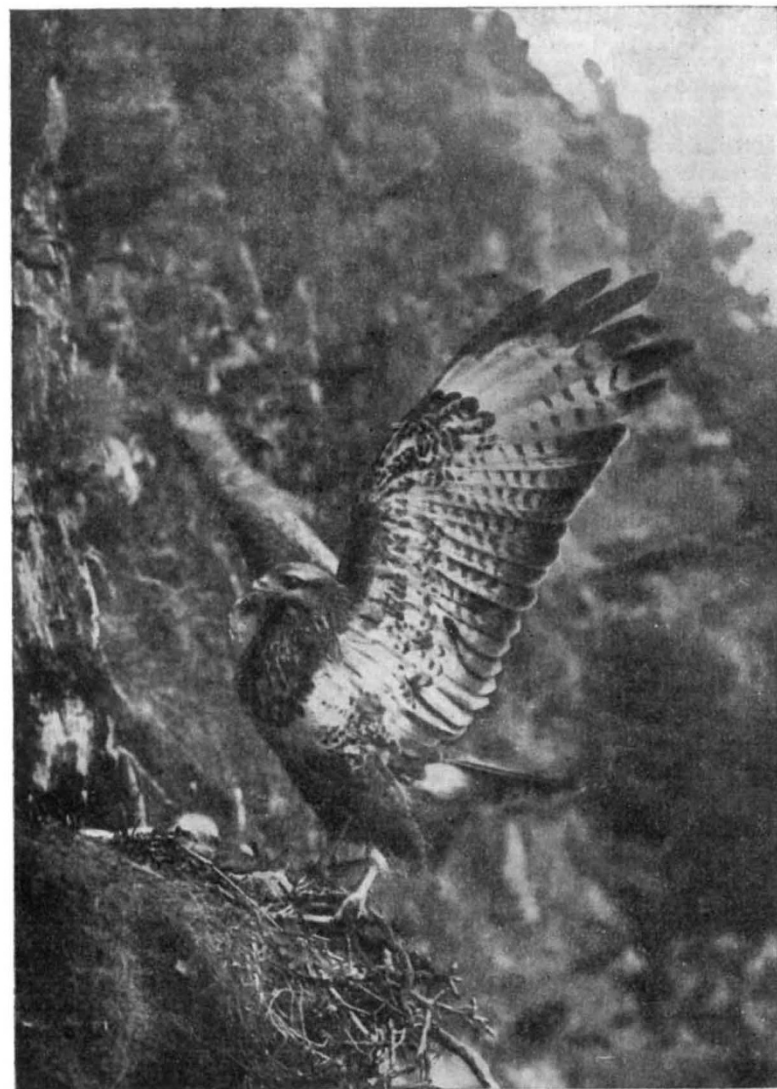


FIG. 1.—The hen buzzard alighting at the nest. From "The Buzzard at Home."

the exception rather than the rule. The one studied by Mr. Brook was on a cliff, where with some difficulty a hiding-place was built for the observer. There were two young birds about a week old, and when observations began the nest contained several mice, one frog, one mole, half a dozen castings, and a quantity of fresh leaves

about 2 ft. from the nest, and looked about in a nervous, cunning way. "I could almost swear it was saying to itself anxiously, 'Are they looking?' No—thank goodness, I've done them at *last*." And then, without any hesitation, it hopped straight into the hedge and disappeared from view. For about

¹ "The Buzzard at Home." By Arthur Brook. ("British Birds" Photographic Series.) Pp. 15+12 plates. (London: Witherby and Co., 1920.) Price 3s. 6d. net.

² "The Story of a Cuckoo's Egg." Told and pictured by Hilda Terras. Pp. 95. (London: The Swarthmore Press, Ltd., n.d.) Price 6s. net.

a minute it was there; then it came out and flew away. Burning with curiosity, I hurried into the garden, and, eagerly parting the branches of the hedge, looked into the nest—and lo and behold, there, lying in Henrietta's dear little cup-shaped, softly lined cradle, I saw the cuckoo's egg! One of my sisters had watched the whole affair with me, and once more we were amazed at the positively uncanny sagacity of the bird. The whole thing seemed so extraordinarily intelligent and so *mean*."

The observer noticed that the cuckoo had not her egg in her bill, and concluded that it was in its mouth out of sight. But might not the cuckoo lay the egg in the nest? The hedge-sparrow laid four eggs, and when the young cuckoo was hatched the usual tragedy occurred. "For the first two days his shiny naked little body was dark fawny-pink in colour, but by the fourth day he had gone almost black, and his eyes, covered over with blue-black skin, looked disproportionately large. From the moment that his eyes opened he showed signs of surprising viciousness whenever I put my hand anywhere near the nest." When the young cuckoo was a fortnight old, more than filling the nest, the foster-mother was seen brooding, "uncomfortably crouched on top of his broad and ample back. It was rather like a pigeon trying to brood a hen." Whenever either of the foster-parents approached, the young cuckoo made a "strange little tinkling noise, . . . just like a tiny tinkling silver bell." The menu consisted of grubs, daddy-long-legs, butterflies, caterpillars, and small insects, and the number collected and consumed in a day was amazing. The indefatigable foster-parents continued to feed the cuckoo for more than a week after it had left the nest.

Miss Terras tells her story in a very attractive way. We do not know whether she has done this by instinct or by art, but we know we have

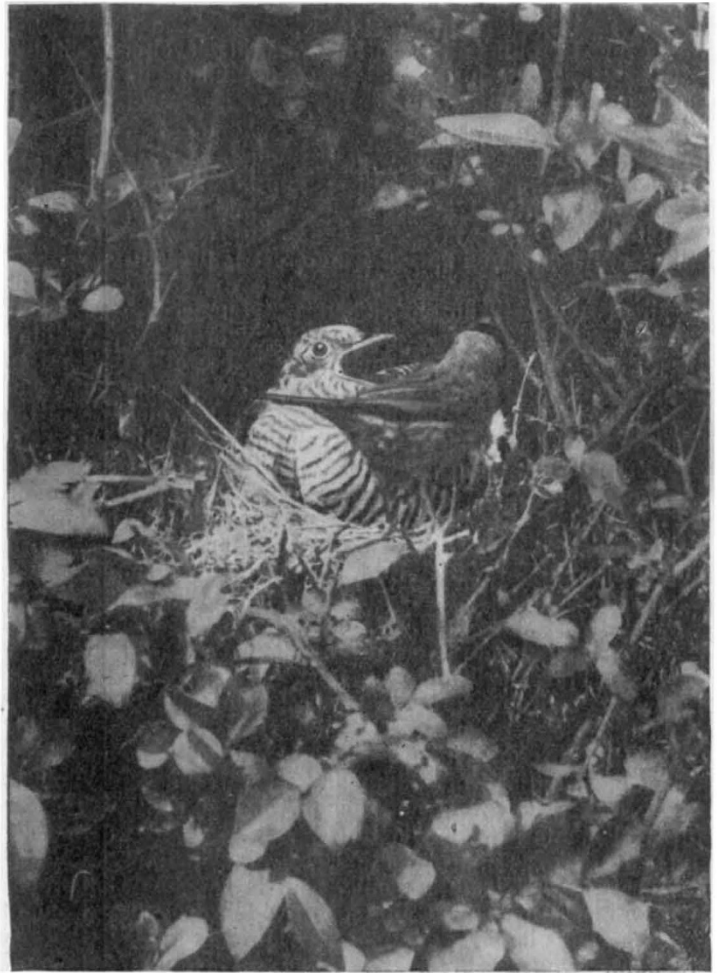


FIG. 2.—Hedge-sparrow feeding a young cuckoo. From "The Story of a Cuckoo's Egg."

had a most delightful hour. We recommend the book very strongly to young people and to those who would renew their youth.

Helium: Its Production and Uses.¹

By PROF. J. C. McLENNAN, F.R.S.

[IN 1868 Janssen (*Compt. rend.*, 1868, vol. lxxvii., p. 838) directed attention to the existence of certain lines hitherto unobserved in the solar spectrum, which we now know are given by the element helium. In the same year Frankland and Lockyer² (*Proc. Roy. Soc.*, 1868, vol. xvii., p. 91), from their observations on these spectral lines, were led to announce the existence of an

element in the sun which up to that time had not been found on the earth. To this element they gave the name "helium."

In 1882 the discovery was made by Palmieri (*Gazzetta*, 1882, vol. xii., p. 556) that the helium spectrum could be obtained from rocks and lavas taken from Vesuvius.

In the United States of America, Hillebrand in 1890 (*Bull. U.S. Geol. Survey*, 1890, No. 78, p. 43) succeeded in obtaining a quantity of gas

¹ From a lecture delivered before the Chemical Society on June 17.

² See *NATURE* for May 20, p. 361.