

less birds. The characters of the sternum and the humerus suggest those of the sailing fliers.

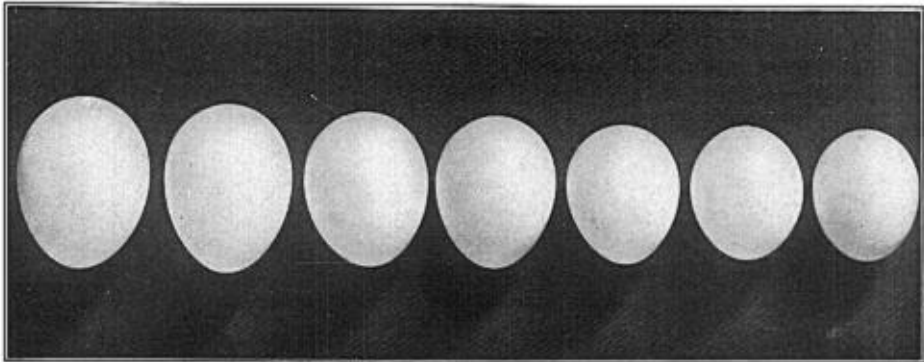
Those California bird students who have seen the Condor towering above the Turkey Buzzards group about a carcass probably have a good mental picture of the way this great bird must have appeared among the Condors gathered about the vulture feast at the asphalt beds during Quaternary time.

### ABNORMAL BIRDS' EGGS

By A. M. INGERSOLL

WITH FOUR PHOTOS BY THE AUTHOR

**O**OLOGICAL abnormalities are occasionally found by all collectors; but few, probably, have had the experience of examining a set of eggs showing such gradual variation in size as is illustrated in figure 7, accompanying this article. The seven eggs measure in inches, 1.06×.81, 1.04×.76, .96×.76, .93×.73, .84×.69, .82×.68, .81×.65. Each egg appeared to contain the usual proportionate amount of yolk. This Red-shafted Flicker, being inexperienced in nest building or too lazy to excavate a proper home, took possession of a large decayed-out hollow in an immense cottonwood tree. The entrance to this natural cavity was large



**Fig. 7.** SET OF SEVEN EGGS OF THE RED-SHAFTED FLICKER, COLLECTED AT RAMONA, CALIFORNIA, APRIL 25, 1888

enough to admit my head. This set of freaks were followed by eggs of normal size in the same nest.

Runts are commonly infertile. The yolk is generally present but sometimes much reduced in quantity and occasionally entirely lacking. Barring out species laying but a single egg to a set, I can only recall three instances in which a runt was positively the first egg deposited. It seems reasonable to believe such runts as are laid at the commencement of a set to be eggs of young birds, and those that are laid at completion of a set to be the final product of old birds on the verge of barrenness or enfeebled by excessive laying. I have never known of a set with runts, or such deformities as lopsided eggs, granulated shell texture, wrinkled or warty shell, to be followed by others containing similar abnormalities. This would seem to indicate that such malformations are not caused by a permanent individual peculiarity of the parent bird, as apparently is the case when certain individuals habitually lay eggs departing from normal in coloration, size or

shape. Physical characteristics cause some birds to produce eggs differing from the average eggs of their species to such an extent that distinguishing peculiarities can easily be traced thru set after set for a number of years.

Speckled eggs of a species normally laying unmarkt eggs are of less frequent occurrence than are immaculate examples of those which commonly lay spotted or markt specimens. Of the former, I once examined a set of three pipt eggs of the Western Blue Grosbeak that were sprinkled with freckle-like specks of yellowish-brown and obscure blotches of lilac. Another time, I found a Robin's egg that was well spotted with olive-brown, chiefly around the large end. This, and the following remarkable instances, occurred in New York State.

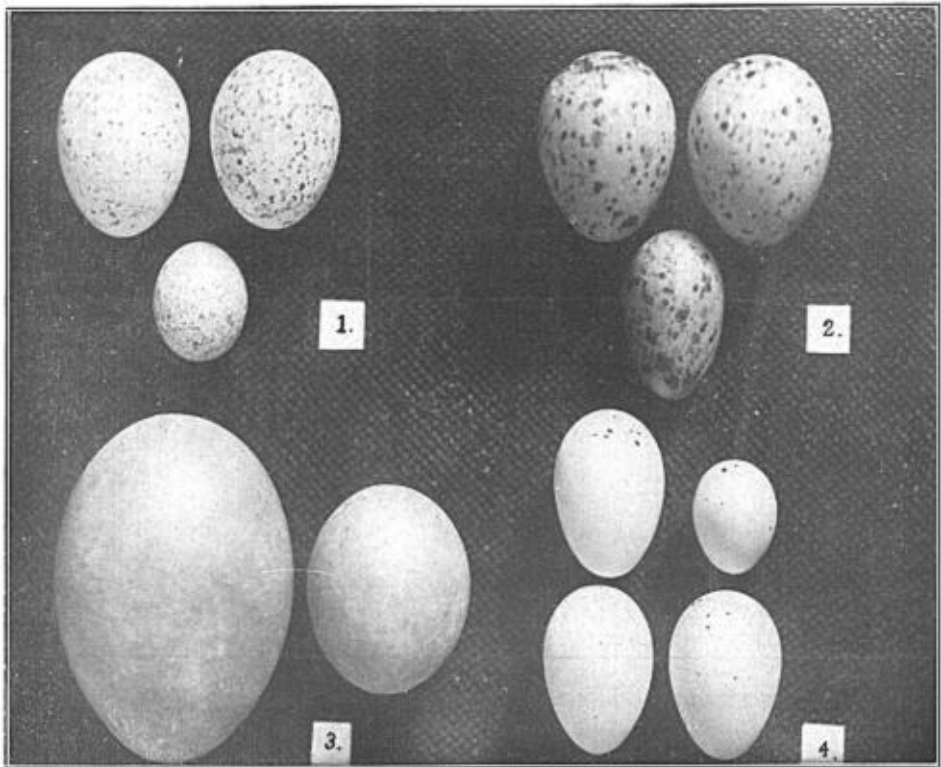


Fig. 8. ONE RUNT EGG IN EACH SET: NO. 1, LONG-TAILED CHAT; NO. 2, RUSSET-BACKT THRUSH; NO. 3, AMERICAN EARED GREBE; NO. 4, HOUSE FINCH

One August day, as I approacht a large tree having long, drooping branches, I was startled by an American Goldfinch flying near my face. On looking up, a typical nest of this species was seen within reach of my hand. It contained several young birds and one well-spotted egg, the shell of this egg being dented and the partially formed embryo dried up. The next year a set of four spotted eggs were found in a nearby tree by a friend of mine. These were taken by him, and were unfortunately destroyed by a playful dog on reaching home. I was agreeably surprised later in the season, to find a handsome set of four spotted eggs of the Goldfinch on the original branch of the first tree. All nine eggs were rather uniformly speckled with various shades of light reddish-brown. The shades of color,

distribution of markings and ground tint of the four specimens taken by me, were almost exactly like spotted eggs of the Indigo Bunting that were collected by the writer during the same season. 'The Goldfinches' were smaller than the Indigo

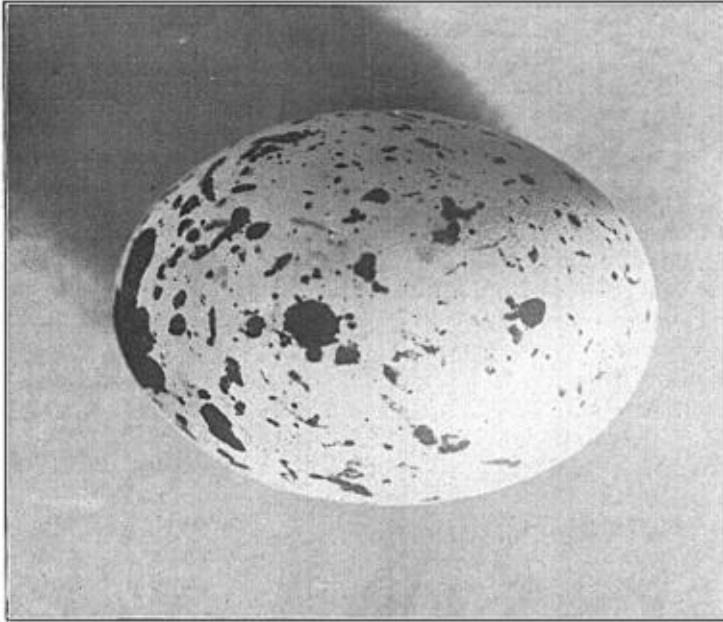


Fig. 9. EGG OF CALIFORNIA MURRE, ABNORMAL IN SHAPE

Bunting's, but otherwise the similarity of one set to the other was so great as to be easily notised by any collector. The Indigo Bunting's referred to are shown in

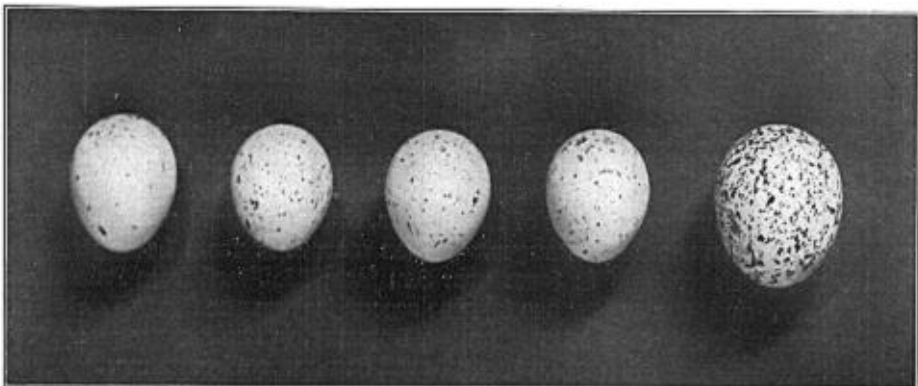


Fig. 10. A SET OF SPOTTED EGGS OF THE INDIGO BUNTING; COWBIRD'S EGG AT RIGHT

figure 10 (also a Cowbird's egg that belongs to the set). They were collected at Ithaca, N. Y., June 17, 1879. I have not seen any other spotted examples of either species since that remote date