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EGG CHECK LIST

OF

NORTH AMERICAN BIRDS,

*GIVING ACCURATE DESCRIPTIONS OF THE COLOR AND SIZE OF THE EGGS,
AND LOCATIONS OF THE NESTS OF THE LAND AND WATER
BIRDS OF NORTH AMERICA.*

By OLIVER DAVIE.

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FIRST EDITION.

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PREFACE.

The unprecedented interest manifest in the delightful study of Birds, their nests and eggs has, within the past few years called forth numerous works on the subject, and the literature of the study has vastly increased, especially in this country, where the field is comparatively new.

The present publication is an entirely new departure from the beaten paths of voluminous works. It treats especially the subject indicated in its title.

Probably no one has felt the need of a work of this character more than the writer.

In making a life business of Natural History, I receive numerous inquiries of the following nature—often written on postal cards: “Please describe the eggs of the following birds for me; also state the location where I am likely to find their nests, *i. e.*, Carolina Wren, Red-tailed Hawk, Kingfisher, Blue-yellow-backed Warbler, and be particular in describing the nidification of the Blue Grosbeak and Canada Grouse.”

I quote the above from a postal card recently received, and which is undoubtedly from a young student of Oölogy.

It would be almost impossible for me to reply fully to all communications of this kind which I receive in the course of a year.

These interrogatives led me to put in a condensed form the descriptions which are now before the reader, and as the author of the first “Egg Check List of North American Birds,” I venture its publication and await the results.

The species of eggs described belong strictly to the North American fauna.

These descriptions are taken chiefly from my private collection, consisting upwards of four hundred species of North American Birds’ Eggs, mostly in original sets, together with the skins of the birds. It is intended that through the aid of this Check List the collector may be enabled to identify his specimens while in the field.

He will learn from this List what a great similarity there is in the eggs of the different species, and in fact, whole families, and how careful he must be to determine correctly.

In the latter part of the present work there will be found concise directions for collecting Birds’ Eggs and Nests, to which I specially call the attention of all young collectors.

Under the head of “Notes” I give additional information regarding the nesting habits of many of the species.

I am fully aware that the present List is not entirely complete, and therefore earnestly solicit additions, corrections and notes of every character relating to the subject from Ornithologists and Oölogists.

OLIVER DAVIE

COLUMBUS, OHIO, January 2, 1885.

LIST OF ABBREVIATIONS.

E. U. S.	EASTERN UNITED STATES
E. N. A.	EASTERN NORTH AMERICA
P. C.	PACIFIC COAST
W. N. A.	WESTERN NORTH AMERICA
N. A.	NORTH AMERICA
S. U. S.	SOUTHERN UNITED STATES
U. S.	UNITED STATES
CAL.	CALIFORNIA
W. U. S.	WESTERN UNITED STATES
N. E. N. A.	NORTH EASTERN NORTH AMERICA
M. U. S.	MIDDLE UNITED STATES
N. U. S.	NORTHERN UNITED STATES
S. E. U. S.	SOUTH EASTERN UNITED STATES
B. A.	BRITISH AMERICA
FLA.	FLORIDA
N. E. U. S.	NORTH EASTERN UNITED STATES
N. N. A.	NORTHERN NORTH AMERICA
S. FLA.	SOUTHERN FLORIDA

EGG CHECK LIST

OF

NORTH AMERICAN BIRDS.

Classified according to the Nomenclature of North American Birds by Robert Ridgway.*

The words "color," "number of eggs," "size" and "habitat." which appear in the description of the eggs of the Wood Thrush, will be omitted, but understood hereafter.

When there is a great variation in the size of eggs, a letter "v" is placed after the average size given.

1. Wood Thrush—HYLOCICHLA MUSTELINA. Color, uniform deep blue; number of eggs, four; size 1.00 by .75. Nests built in low bushes.

Habitat. E. U. S.

2. Wilson's Thrush—HYLOCICHLA FUSCESCENS. Bluish-green, unspotted; .94 by .64. Nests placed in low shrubs, sometimes on the ground.

E. N. A.

3. Gray Cheeked Thrush—HYLOCICHLA ALICILÆ. Deep-green; four; .92 by .64. Nests placed in low trees.

E. N. A.

4. Russet-Backed Thrush—HYLOCICHLA USTULATA. Varying in light green and blue, marked with yellowish brown and lilac; five; .84 by .65, v. Nests placed in low trees. (See notes.)

P. C.

4a. Olive-Backed Thrush—HYLOCICHLA USTULATA SWAINSONI. Greenish-blue, speckled with reddish brown and other tints; four; .88 by .66. Nests placed in trees.

E. N. A.

5. Dwarf Thrush—HYLOCICHLA UNALASCÆ. Pale bluish-green, dotted with light brown, chiefly at the larger end; four; .92 by .69. Nests placed in thickets and low bushes.

W. N. A.

* Nomenclature of North American Birds chiefly contained in the United States National Museum. By Robert Ridgway. Bull. U. S. Nat. Mus., No. 21. Published under the direction of the Smithsonian Institution. Washington: Government Printing Office, 1831. 8 vo. pp. 1-94.

- 5*b*. Hermit Thrush—*HYLOCICHLA UNALASCÆ PALLASI*. Bluish-green, unspotted; four; .92 by .62, *v*. Nests placed on the ground. E. N. A.
7. American Robin—*MERULA MIGRATORIA*. Greenish-blue; five or six; 1.18 by .81. Nests placed in trees, bushes, on fences and stumps, and anywhere for convenience. N. A.
- 7*a*. Western Robin—*MERULA MIGRATORIA PROPINQUA*. Eggs in my collection, so far as I can discern, do not differ from those of the Eastern variety. W. N. A.
9. Varied Robin—*HESPEROCICHLA NÆVIA*. Light blue, marked and spotted with umber brown; four; 1.12 by .80. Nests placed in bushes. P. C.
10. Sage Thrush—*OREOSOPTES MONTANUS*. Bright greenish-blue, marked with spots of deep olive brown and blotches of light lilac; 1. by .74. Nests placed in low bushes. (See notes.) P. C.
11. Mockingbird—*MIMUS POLYGLOTTUS*. Light greenish-blue, marked with blotches of yellowish-brown, russet, chocolate and purple; four to six; .99 by .75, *v*. Nests usually placed in thickets and low bushes. S. U. S.
12. Catbird—*GALEOSOPTES CAROLINENSIS*. Bluish-green; four or five; .97 by .69, *v*. Nests placed in low bushes and thickets. U. S.
13. Brown Thrasher—*HARPORHYNCHUS RUFUS*. Greenish-white, thickly marked with reddish-brown dots, usually more numerous at the larger end; four to six; 1.05 by .81. Nests placed in low bushes, briars, etc., sometimes on the ground. E. U. S.
- 13*a*. Mexican Brown Thrasher—*HARPORHYNCHUS RUFUS LONGIROSTRIS*. Hardly distinguishable from the preceding species; four to six; 1.13 by .79. Nests placed in clusters of briars, etc. Lower Rio Grande.
14. Saint Lucas Thrasher—*HARPORHYNCHUS CINEREUS*. Greenish-white, marked with spots of mingled purple and brown, and yellowish-brown; 1.12 by .77. Nests placed in low trees, shrubs, cactus plants, etc. Lower Cal.
15. Curve-billed Thrasher—*HARPORHYNCHUS CURVIROSTRIS*. Light-green, thickly covered with fine brown spots; five; 1.12 by .80. Nests placed in shrubs. West. Texas, Mexico.
- 15*a*. Palmer's Thrasher—*HARPORHYNCHUS CURVIROSTRIS PALMERI*. Pale blue, sprinkled with dots of yellowish-brown; three; 1.16 by .85. Nests placed in low bushes. Arizona.

16. Californian Thrasher—*HARPORHYNCHUS REDIVIVUS*. Blue, covered with soot-colored spots, confluent at the larger end; three; 1.10 by .85. Nests placed in thick bushes. (See notes.) Cal.

17. Rufus-vented Thrasher—*HARPORHYNCHUS CRISSALIS*. Uniform blue, unspotted; two; 1.10 by .83. Nests placed in low shrubs and dense thickets. W. U. S.

19. American Water Ouzel—*CINCLUS MEXICANUS*. Uniform dull white, unspotted, much pointed; four; 1.04 by .69. Nests in nooks or crevices near the water, on shelving rocks or roots of trees. W. N. A.

22. Bluebird—*SIALIA SIALIS*. Uniform pale blue; five or six; .80 by .62. Nests in boxes or in holes of trees. E. N. A.

23. Californian Bluebird—*SIALIA MEXICANA*. Uniform pale blue; four; .84 by .69. Nesting habits same as those of the preceding species. P. C.

24. Rocky Mountain Bluebird—*SIALIA ARCTICA*. Very light blue; four; .87 by .65. Nesting habits similar to those of the preceding species.
Upper Missouri to Rocky Mt. range, south to Mexico.

25. Townsend's Solitaire—*MYIADESTES TOWNSENDI*. Dull white, thickly blotched or dotted with reddish-brown; four; .83 by .62. Nests in crevices of rocks. W. U. S.

26. Black-crested Flycatcher—*PHAINOPEPLA NITENS*. Light slate, tinged with yellowish green, marked, blotched and spotted from light, obscure purple to deeper tints of purplish-brown and black; two or three; .91 by .60. Nests in small trees. (See notes.) S. W. U. S.

27. Blue-gray Gnatcatcher—*POLIOPTILA CÆRULEA*. Greenish-white, dotted and blotched with reddish-brown, lilac and slate; five; .55 by .45. Nests in trees. U. S.

30. Ruby-crowned Kinglet—*REGULUS CALENDULA*. Uniform dirty cream color; in some there are fine hair lines at the larger end, others are spotted; six or eight; .55 by .43. Nests in trees. N. A.

35. Ground Tit; Wren Tit—*CHAMÆA FASCIATA*. Pale greenish-blue; four; .70 by .52. Nests in shrubs. Cal.

36. Tufted Titmouse—*LOPHOPHANES BICOLOR*. White, thickly sprinkled with reddish brown; five or six; .73 by .52. Nests in natural cavities of trees. E. U. S.

37. Black-crested Titmouse—*LOPHOPHANES ATROCRISTATUS*. Clear white, with spots and blotches of reddish-brown, forming a confluent ring at the large end; four; .76 by .59. Nests in natural cavities of hollow limbs. S. U. S.

40. Mountain Chickadee—*PARUS MONTANUS*. Pure white, some are marked with spots of reddish-brown; five; .63 by .49. Nests in holes of decayed trees. P. C.

41. Black-capped Chickadee—*PARUS ATRICAPILLUS*. White with rosy blush, speckled all over, but most thickly at the larger end, with reddish-brown spots; five or six; .58 by .47. Nests in holes and decayed stumps of trees. E. N. A.

41a. Long-tailed Chickadee—*PARUS ATRICAPILLUS SEPTENTRIONALIS*. Dull-white, uniformly covered with fine markings and small blotches of red and reddish-brown, with few dots of purplish; five to eight; .60 by .50. Nests in decayed stumps and hollow trees. W. U. S.

42. Carolina Chickadee—*PARUS CAROLINENSIS*. Pure white, uniformly sprinkled with blotches of reddish-brown; five to seven; .60 by .50. Nests in holes of decayed stumps and hollow trees. S. U. S.

45. Hudsonian Chickadee—*PARUS HUDSONICUS*. White, marked with reddish-brown spots, forming a ring around the larger end; .56 by .47. Nests in hollow stumps of trees. N. E. N. A.

47. Least Tit—*PSALTRIPARUS MINIMUS*. Pure white; five to nine; .55 by .43. Nests placed in the branches of small trees. W. U. S.

50. Yellow-headed Tit—*AURIPARUS FLAVICEPS*. Pale blue, with numerous small brown spots, chiefly near the larger end; four; .60 by .44. Nests built in trees. W. U. S.

51. White-bellied Nuthatch—*SITTA CAROLINENSIS*. Roseate tinge, covered with spots of reddish-brown, with a slight tinge of purple; four; .80 by .62. Nests in hollows of decayed trees. E. U. S.

51a. Slender-billed Nuthatch—*SITTA CAROLINENSIS ACULEATA*. Creamy white, speckled and blotched with reddish brown, sometimes over the whole surface but chiefly at the larger end; five or six; .78 by .62. Nests in holes of trees. P. C. to Rocky Mts.

52. Red-bellied Nuthatch—*SITTA CANADENSIS*. Roseate tinge, thickly covered with spots of reddish; four to six; .60 by .48. Nests in dead stumps of trees. N. A.

53. Brown-headed Nuthatch—*SITTA PUSILLA*. White, very thickly sprinkled with reddish-brown dots; they appear almost a uniform chocolate color; rounded oval; four to six; .60 by .50. Nests in dead stumps of trees. S. U. S.

54. Pigmy Nuthatch—*SITTA PYGMEA*. Crystalline-white, more or less thickly covered with red spots, most numerous at the larger end; seven; .63 by .45. Nests in the cavities of old trees. P. C.

55. Brown Creeper—*CERTHIA FAMILIARIS RUFA*. Grayish-white, sparsely sprinkled with reddish-brown; five to nine; .55 by .44. Nests within scales of loose bark. N. A.

56. Cactus Wren—*CAMPYLORHYNCHUS BRUNNEICAPILLUS*.—White, thickly covered with rich salmon-colored spots; giving a beautiful cast to the surface; four; .94 by .63. Nest, purse shaped, usually placed in the branches of a cactus. S. W. U. S.

57. Saint Lucas Cactus Wren—*CAMPYLORHYNCHUS AFFINIS*. Similar to those of the preceding species. Cap. St. Lucas.

58. Rock Wren—*SALPINCTES OBSOLETUS*. Crystalline White, sprinkled with distinct reddish-brown dots, usually forming a ring around larger end; four to eight; .70 by .62. Nests in a rift of rocks. W. U. S.

59a. White-throated Wren—*CATHERPES MEXICANUS CONSPERSUS*. Crystalline white, covered with large blotches of reddish or cinnamon-brown; four; .80 by .60. Nests in crevices of old walls. M. U. S.

60. Carolina Wren—*THRYOTHORUS LUDOVICIANUS*. Reddish-white, thickly spotted with various shades of reddish brown; five to seven; .74 by .60. Nests in barns, sheds, or in cavities of old logs. E. U. S.

61. Bewick's Wren—*THRYOMANES BEWICKI*. Thickly covered with reddish-brown, almost concealing the white ground; seven to nine. Nests anywhere, in boxes, holes, fence-posts, etc. (See notes.) S. U. S.

61a. Californian Bewick's Wren—*THRYOMANES BEWICKI SPILURUS*. Same markings as those of the preceding species. P. C.

61b. Texan Bewick's Wren—*THRYOMANES BEWICKI LEUCOGASTER*. Hardly distinguishable from the two preceding species. S. Border U. S.

63. House Wren—*TROGLODYTES AEDON*.—White, thickly dotted with fine spots of reddish-brown, with a light tinge of purple; seven to nine; .61 by .55. Nests in hollow trees, boxes, etc. E. U. S.

63a. Western House Wren—*TROGLODYTES AEDON PARKMANI*. Same markings as those of the preceding species. Nesting habits same. W. U. S.

65. Winter Wren—*ANORTHURA TROGLODYTES HYEMALIS*. White, spotted with a bright, reddish-brown, with markings of purple; five; .65 by .48. Nests under roots of trees, hollow logs, etc. N. A.

67. Long-billed Marsh Wren—*TELMATODYTES PALUSTRIS*. Thickly marked with brown spots so as to appear of a uniform chocolate color; six to nine; .65 by .50. Nests in low bushes. N. A.

68. Short-billed Marsh Wren—*CISTOTHORUS STELLARIS*. Pure white; nine; .60 by .45. Nests in high grass or bushes. E. U. S.

71. American Titlark—*ANTHUS LUDOVICIANUS*. Dark chocolate color, indistinctly marked with numerous small lines and streaks of black; four or five. Nests placed on the ground. N. A.

73. Sprague's Titlark—*NEOCORYS SPRAGUEI*. White, minutely dotted with grayish-purple, so as to appear of a uniform color; four or five; .87 by .63. Nests placed on the ground. N. U. S.

74. Black-and-white Creeper—*MNIOTILTA VARIA*. Creamy-white, spotted and blotched with reddish, chiefly at the larger end; three to seven. Nests placed on the ground. E. N. A.

75. Prothonotary Warbler—*PROTONOTARIA CITREA*. Clear, lustrous white; in some, spots and dottings of dull brown, with markings of pale lavender over the entire surface; in others, bold blotches of reddish-brown, thickly laid on, especially around the larger end; in some instances almost obscured; five to seven; .70 by .52. Nests in holes of trees. S. E. U. S.

77. Worm-eating Warbler—*HELMINTHOTHERUS VERMIVORUS*. White, rather sparsely dotted with reddish-brown; four; .74 by .62. Nests placed on the ground. E. U. S.

79. Blue-winged Yellow Warbler—*HELMINTHOPHAGA PINUS*. White, with small red spots, forming a ring around the larger end, and a few spots are scattered over the whole surface; four or five; .70 by .54. Nests placed on the ground. E. U. S.

81. Golden-winged Warbler—*HELMINTHOPHAGA CHRYSOPTERA*. Crystal-white, with a few bright reddish-brown spots around the greater end; three or four; .65 by .52. Nests on or near the ground. E. U. S.

83. Lucy's Warbler—*HELMINTHOPHAGA LUCIÆ*. Crystal white, spotted chiefly around the larger end with fine dottings of purplish-red; four; .54 by .45. Nests between the loose bark and dead trunks of trees. Cal.

84. Virginia's Warbler—*HELMINTHOPHAGA VIRGINIÆ*. White, with roseate tinge, profusely spotted with numerous small blotches and dots of purplish-brown and lilac, forming a ring around the larger end; four; .64 by .47. Nests on the ground. Southern Portion of the Middle Province, U. S.

85. Nashville Warbler—*HELMINTHOPHAGA RUFICAPILLA*. White, sprinkled with light reddish-brown specks, most thickly at the large end; four; .60 by .50. Nests on the ground. E. N. A.

86. Orange-crowned Warbler—*HELMINTHOPHAGA CELATA*. White; marked with spots and blotches of reddish-brown, thickly about the larger end; four to six; .65 by .47. Nests placed on the ground. N. A.

87. Tennessee Warbler—*HELMINTHOPHAGA PEREGRINA*. White, with numerous small dots and points of reddish-brown and slate; .68 by .50. Nests on or near the ground. E. N. A.

88. Blue Yellow-backed Warbler—*PARULA AMERICANA*. Finely sprinkled on a white ground with reddish-brown dots, chiefly at the larger end, in some forming a ring; four and five; .63 by .49. Nests in trees and bushes. E. N. A.

93. Summer Yellow Bird; Yellow Warbler—*DENDRÆCA ÆSTIVA*. Light green, with dots and blotches of light purple, brown and lilac; four; .62 by .50. Nests in trees and bushes. N. A.

94. Black throated Blue Warbler—*DENDRÆCA CÆRULESCENS*. White, with a ring of brown and lilac dots, and blotched at the larger end, with minute spots scattered over the entire surface; four or five; .62 by .45. E. U. S.

95. Yellow-rump Warbler—*DENDRÆCA CORONATA*. White, blotched and spotted with different shades of brown and purplish; four to six; .72 by .54. Nests in bushes. N. A.

96. Audubon's Warbler—*DENDRÆCA AUDUBONI*. Pinkish-white, with red markings chiefly about the larger end; .70 by .50. Nests in small trees and bushes. W. N. A.

97. Black-and-yellow Warbler—*DENDRÆCA MACULOSA*. Creamy-white, blotched sparingly over with large spots of lilac and umber; .62 by .51. Nests in low spruce. E. N. A.

98. Cerulean Warbler—*DENDRÆCA CÆRULEA*. Dull creamy-white, more or less thickly covered with blotches of reddish-brown; five; .60 by .47. Nests in high trees. E. U. S.

99. Chestnut-sided Warbler—*DENDRŒCA PENNSYLVANICA*. Rich creamy-white, and beautifully spotted, chiefly at the larger end, with purple and purplish-brown; three or four; .65 by .49. Nests in shrubs. E. U. S.
100. Bay breasted Warbler — *DENDRŒCA CASTANEA*. Bluish-green, thickly spotted with brown, usually with a ring of blotches of brown and lilac at the larger end; four to six; .69 by .51. Nests in trees. E. N. A.
101. Black-poll Warbler—*DENDRŒCA STRIATA*. White, spotted with lavender, dark purple, lavender and reddish-brown; five; .72 by .50. Nests in thick spruce trees. E. N. A.
102. Blackburnian Warbler—*DENDRŒCA BLACKBURNIÆ*. White, spotted chiefly at the larger end with reddish-brown and lilac; four; .65 by .50. Nests in trees and bushes. E. N. A.
103. Yellow-throated Warbler—*DENDRŒCA DOMINICA*. Grayish-white, with fine dottings of pale lilac and brown scattered thinly and evenly over the entire surface; four; .69 by .53. Atlantic U. S.
106. Golden-cheeked Warbler—*DENDRŒCA CHRYSOPARIA*. Clear white, evenly covered with fine but distinct spots of light reddish-brown, in some so faint that the surface appears white; .73 by .54. Nests in trees. S. U. S.
107. Black-throated Green Warbler — *DENDRŒCA VIRENS*. White, blotched and dotted with reddish and purplish-brown, more numerous about larger end; three or four; .70 by .50. Nests in high trees. E. U. S.
111. Pine creeping Warbler—*DENDRŒCA PINUS*. Bluish-white, with subdued tintings of the shade of purple, on this are distributed dots and blotches of dark purplish-brown, and with lines of almost black; four; 72 by .55. Nests in pine trees. E. N. A.
- 113a. Yellow Red-poll Warbler—*DENDRŒCA PALMARUM HYPOCHRYSEA*. Yellowish-white, with a blending of blotches of purple, lilac and reddish-brown, chiefly about the larger end; four; .70 by .55. Nests on the ground at the edge of a swampy thicket. Atlantic U. S.
114. Prairie Warbler—*DENDRŒCA DISCOLOR*. White, spotted with lilac, purple and umber; three to five; .68 by .48. Nests in low bushes. E. U. S.
115. Golden-crowned Thrush—*SIURUS AURICAPILLUS*. Creamy-white, marked with dots and blotches of red and reddish-brown, chiefly at the larger end; four to five; .85 by .55. Nests on the ground. E. N. A.
116. Small-billed Water Thrush—*SIURUS NEVIUS*. Clear, crystal white, more or less marked with lines, dots and dashes of varying shades of

umber-brown and lilac, more numerous around the larger end; four to six; .76 by .58. Nests on the ground. E. N. A.

117. Large-billed Water Thrush—*SIURUS MOTACILLA*. White, with a fleshy tint, with blotches of dark umber and fainter sub markings of pale lavender about the larger end, while over the entire surface are thickly sprinkled dotting of reddish-brown; six; .74 by .60. The favorite nesting place is among the upturned roots of a fallen tree. E. U. S.

119. Kentucky Warbler—*OPORORNIS FORMOSA*. Glossy white, spotted and speckled with reddish-brown and lilac, chiefly at the larger end; four; .72 by .53. Nests on the ground. E. U. S.

120. Mourning Warbler—*GEOTHLYPIS PHILADELPHIA*. Light flesh-color, uniformly speckled with fine brown specks; .75 by .55. Nests on the ground. E. U. S.

121. Macgillivray's Warbler—*GEOTHLYPIS MACGILLIVRAYI*. Pinkish-white, marked and spotted with purple, lilac, reddish-brown and dark brown, approaching black; four or five; .70 by .50. Nests on or near the ground. W. U. S.

122. Maryland Yellow-throat—*GEOTHLYPIS TRICHAS*. Clear crystalline white, dotted and blotched around the greater end with purple, reddish-brown and umber; four to six; .70 by .52, *v.* Nests on the ground in swampy places. U. S.

123. Yellow-breasted Chat—*ICTERIA VIRENS*. Glossy-white, with spots of reddish-brown, pretty evenly distributed, sometimes forming a ring around the greater end; .90 by .68. Nests in small trees or bushes in thickets. E. U. S.

123a. Long-tailed Chat—*ICTERIA VIRENS LONGICAUDA*. Markings same as those of the preceding species; from .95 to 1.00 in length, average breadth .70. Nesting habits same. High Central Plains of U. S. to the Pacific.

124. Hooded Warbler—*MYIODICTES MITRATUS*. White, tinged with flesh color, spotted with red, with a few markings of subdued purple; three or four; .70 by .50. Nests in bushes and low trees. E. U. S.

125. Black-capped Yellow Warbler—*MYIODICTES PUSILLUS*. White, dotted with reddish brown, chiefly at the larger end; four. Nests in low bushes or on the ground. E. U. S.

125a. Pileolated Warbler—*MYIODICTES PUSILLUS PILEOLATUS*. Dull whitish, thickly freckled with dark, rusty-brown; four and five; .60 by .50. Nests on the ground or in low bushes. P. C.

127. Canadian Flycatching Warbler—*MYIODIOCTES CANADENSIS*. White, beautifully marked with dots and small blotches of blended brown, purple and violet, varying in shades and tints in a wreath around the larger end; five; .68 by .52. Nests on the ground, or in a tussock of grass in a swamp. E. N. A.

128. American Redstart—*SETOPHAGA RUTICILLA*. Grayish-white, dotted and blotched with brown, lilac and purple; four; .66 by .49. Nests in low branches of trees. E. N. A.

135. Red-eyed Vireo—*VIREOSYLVA OLIVACEA*. Sparsely sprinkled on a pure white ground with fine dark, reddish-brown dots chiefly at the larger end; four or five; .78 by .60. Nests in trees, height ranging from ten to fifty feet. E. N. A.

139. Warbling Vireo—*VIREOSYLVA GILVA*. Spotted and sometimes blotched at the larger end with brown and reddish-brown on a clear white ground—sometimes over the surface will be found small specks of reddish-brown; five; .70 by .56, *v.* Nest in trees, same as the Red-eyed. E. N. A.

139a. Western Warbling Vireo—*VIREOSYLVA GILVA SWAINSONI*. Eggs in my collection are the same as those of the preceding species. Nests the same, except in materials used. P. C.

140. Yellow-throated Vireo—*LANIVIREO FLAVIFRONS*. White, marked with spots of rosy brown; four; .82 by .62, *v.* Nests in low branches of trees. E. U. S.

141. Blue-headed Vireo—*LANIVIREO SOLITARIUS*. White, less crystalline than the other Vireos, pretty uniformly spotted over the egg with dark red and reddish-brown; five; .76 by .51. Nests in trees. U. S.

142. Black-capped Vireo. *VIREO ATRICAPILLUS*. Spotless dull white, ovoid in shape; three or four; .66 by .52. Nests in low bushes. Texas and Mexico.

143. White-eyed Vireo—*VIREO NOVEBORACENSIS*. Spotted with fine dark-purple and reddish-brown on a clear white ground, chiefly about the larger end; five; .85 by .65. Nests in low bushes and saplings. E. U. S.

144. Hutton's Vireo—*VIREO HUTTONI*. White, delicate blush-color before blown, with minute dots of reddish-brown, more numerous toward the larger end; four; .70 by .50, *v.* Nests in trees and bushes. CAL.

145. Bell's Vireo—*VIREO BELLI*. Pure white, sparingly spotted with fine red dots distributed around the larger end; four; .62 by .57, *v.* Nests in trees and bushes. Missouri and Eastern Texas.

146. Least Vireo—*VIREO PUSILLUS*. Crystalline white, speckled with red and reddish-brown, markings being very minute and scarcely discernible in some, in others very distinctly marked; four; .67 by .55. Nests in low bushes and small trees. S. W. U. S.

148. Great Northern Shrike—*LANIUS BOREALIS*. Light greenish-ground, marbled and streaked with blotches of obscure-purple, clay color, and rufous brown; four or five. Nests in trees. N. N. A.

149. Loggerhead Shrike—*LANIUS LUDOVICIANUS*. Light grayish, blotched and spotted with obscure yellowish and light brown and purplish-gray more or less confluent; five or six; 1.05 by .76. Nests in thorn trees, hedges and tangled briars, nest very large and massive.

South Atlantic and Gulf States.

149a. White-rumped Shrike—*LANIUS LUDOVICIANUS EXCUBITORIDES*. Eggs in my collection, obtained in California, are not distinguishable from those of the Loggerhead Shrike. In that State they nest in alders, live oak and orange trees. Missouri plains and fur countries to P. C.

150. Northern Wax wing; Bohemian Wax-wing—*AMPELIS GARRULUS*. Greenish-slate or stone color, spotted with a dark brown, with deep violet shading, .70 by .67. Nests and eggs of this species are said to differ with those of the Cedar Wax-wing only in size, and the breeding habits are the same. Northern parts of both continents. Seen in U. S. only in severe winters, except along the great lakes.

151. Cedar Wax-wing—*AMPELIS CEDRORUM*. Varying from a light slate to a deep shade of stone-color tinged with olive, marked with blotches and spots of a dark brown and purple, almost black; five; .85 by .65, *v*. Nests in trees. N. A.

152. Purple Martin—*PROGNE SUBIS*. Pure white, oblong-oval, pointed at one end; five or six; .97 by .68, *v*. Nests in the deserted excavations of woodpeckers, in cavities of dead limbs of sycamore and walnut trees, and in boxes. N. A.

153. Cliff Swallow—*PETROCHELIDON LUNIFRONS*. White, marked with dots, blotches and points of reddish-brown chiefly about the larger end, less elongated than those of the Barn Swallow, but the markings of the two are hardly distinguishable; five; .78 by .60, *v*. Nests under the eaves of buildings, against a vertical or overhanging rock. The nest is retort shape, made of mud. N. A.

154. Barn Swallow—*HIRUNDO ERYTHROGASTRA*. White, marked with spots and blotches of bright reddish-brown, chiefly at the larger end; four to six; .78 by .56, *v*. Nests in the interior of a barn, in caves, crevices of rocks, under the sides of wooden bridges. N. A.

155. White-bellied Swallow—*TACHYGINETA BICOLOR*. White, unspotted, oblong-oval; four to nine; .81 by .53, *v*. Nests in the old excavations of woodpeckers or natural cavities of dead trees, usually in the vicinity of water. U. S.

156. Violet-green Swallow—*TACHYGINETA THALASSINA*. Pure white; four to six; .80 by .50. Nesting habits same as those of the preceding species. Rocky Mountains to P. C.

157. Bank Swallow—*COTILE RIPARIA*. White; four to six; oval; .72 by .47. Nests in holes dug near the level of the ground in the perpendicular face of a bank. N. A.

158. Rough-winged Swallow—*STELGIDOPTERYX SERRIPENNIS*. Immaculate white; five or six; .75 by .53. Nests in crevices between stones in walls and arches of bridges, usually over running water. U. S.

161. Scarlet Tanager—*PYRANGA RUBRA*. Greenish-blue, blotched and spotted with a reddish or rufous-brown, more or less confluent, in some chiefly at the greater end; two to five; .90 by .65. Nests placed in forest trees. U. S.

162. Western Tanager—*PYRANGA LUDOVICIANA*. Light bluish-green, speckled chiefly at the greater end with markings of umber, intermingled with a few dots of lilac; three or four; .95 by .65. Nests in trees. W. U. S.

136. Hepatic Tanager—*PYRANGA HEPATICA*. Pale light-green, some sparingly marked over the entire egg with large blotches of purplish-brown, others are thickly covered with dottings of the same hue; .90 by .78, *v*. Nests and eggs said to resemble those of the Summer Redbird. Arizona.

164. Summer Redbird—*PYRANGA AESTIVA*. Bright light emerald-green, spotted, marbled, dotted and blotched with various shades of lilac, brownish-purple, and dark brown; three; .90 by .68, *v*. Nests in trees. (See notes.) S. U. S.

166. Pine Grosbeak—*PINICOLA ENUCLEATOR*. Light slate colored ground with a marked tinge of greenish, broadly marked and plashed with faint, subdued cloudy patches of brownish-purple and sparingly spotted, chiefly at the larger end with blackish-brown and dark purple; three or four; 1.02 by .70. Nests in bushes. B. A.

168. Purple Finch—*CARPODACUS PURPUREUS*. Pale emerald-green, spotted with very dark brown, chiefly about the greater end; four to six; .75 by .62. Nests in firs, spruces and cedar-trees. U. S.

168a. California Purple Finch—*CARPODACUS PURPUREUS CALIFORNICUS*. White, with a scarcely perceptible shade of bluish, with a few lines and dots of black or dark brown about the larger end, blunted oval; four to six; .73 by .55. Nests similar to the preceding species. P. C.

169. Cassin's Purple Finch—*CARPODACUS CASSINI*. Light bluish-green, dotted around the larger end with slate, lilac and blackish-brown; four; .82 by .63. Nests in bushes and trees. Rocky Mountains and Colorado Valley.

170. House Finch—*CARPODACUS FRONTALIS*. Pale blue, marked chiefly at the larger end with specks and lines of blackish-brown; six; .85 by .65. Nests in all sorts of nooks about buildings, in hay-stacks, and on limbs of trees. Rocky Mountains to P. C.

170a. Crimson House Finch—*CARPODACUS FRONTALIS RHODOCOLPUS*. Bluish-white, marked with spots and lines of a dark brown or black; five; .80 by .60. Nesting habits same as those of the preceding species. (See notes.) Cal.

172. American Crossbill—*LOXIA CURVIROSTRA AMERICANA*. Greenish white, with irregular spots and dottings of lavender-brown, varying in shade, with a few heavy surface spots of dark purple-brown; four; .75 by .56. Nests in fir trees. N. N. A.

173. White-winged Crossbill—*LOXIA LEUCOPTERA*. "Pale blue, the larger end rather thickly spattered with black and ashy lilac"; .80 by .56. Nesting habits resemble those of the preceding species. N. N. A.

179. Common Redpoll—*ÆGIOTHUS LINARIA*. Pale bluish green, speckled chiefly in a wreath around the larger end with rusty brown, varying in shades; four or five; .65 by .54. Nests in low trees and bushes. E. N. A.

181. American Goldfinch—*ASTRAGALINUS TRISTIS*. Bluish-white, unspotted, sharply pointed at one end; five; .65 by .52. Nests in trees in July. N. A.

182. Green-backed Goldfinch—*ASTRAGALINUS PSALTRIA*. Greenish-white, sharply pointed at one end; four or five; .60 by .50. Nests in trees, same as the common Goldfinch. Rocky Mountains, N. Mexico, California.

182a. Arizona Goldfinch—*ASTRAGALINUS PSALTRIA ARIZONÆ*. Eggs same color as those of the preceding, but slightly smaller. Nidification similar. Arizona.

182b. Mexican Goldfinch—*ASTRAGALINUS PSALTRIA MEXICANUS*. Similar to the eggs of Lawrence's Goldfinch. Nesting habits about the same. (See following species.) Mexican side of the valley of the Rio Grande, Cal.

183. Lawrence's Goldfinch—*ASTRAGALINUS LAWRENCEI*. Pure white; four or five; .62 by .46. Nests built in trees. California.

185. Pine Goldfinch—*CHRYSOMITRIS PINUS*. Light green, spotted chiefly at the larger end with markings of a light rusty-brown; oblong-oval; four; .71 by .50. N. A.

186. Snow Bunting—*PLECTROPHANES NIVALIS*. White, in some flecked all over with neutral tint; shell-markings overlaid by deep brown spots and scratches, especially at the greater end; in other cases a heavy wreath of confluent blotches of dull brown around the larger end, and again the whole surface is mottled with pale chocolate; five; .95 by .65. Nests placed on the ground. Breeds from latitude 62° northward. N. A.

187. Lapland Longspur—*CENTROPHANES LAPPONICUS*. Apparent greenish-gray ground, with a heavy mottling of chocolate-brown, rather pointed; five; .85 by .64. Nests on the ground, breeds in arctic regions. N. A.

188. Smith's Longspur—*CENTROPHANES PICTUS*. Light clay color, marked with obscure blotches of lavender and darker lines, dots and blotches of dark purplish-brown; five; .80 by .65. Nests built on the ground. Prairies of Illinois in winter, in summer north to the Saskatchewan.

190. McCown's Longspur—*RHYNCHOPHANES MACCOWNI*. Dull white, with obscure and rather sparse mottling and darker markings of purplish and reddish-brown; .80 by .60. Nests placed on the ground.

Eastern slopes of the Rocky Mountains:

193a. Savannah Sparrow—*PASSERCULUS SANDWICHENSIS SAVANNA*. Greenish or grayish-white, more or less thickly blotched with different shades of brown, in some, the markings are brown and purple, forming a confluent ring around the larger end; four to six; .68 by .55. Nests on the ground.

N. A.

193b. Western Savannah Sparrow—*PASSERCULUS SANDWICHENSIS ALAUDINUS*. Same as those of the preceding species. Nesting habits the same. W. U. S.

197. Grass Finch—*POECETES GRAMINEUS*. Pale greenish-white, marked with lines, dots and blotches of various shades of reddish and purple-brown. In some, a confluent ring is formed about the larger end; four; .80 by .55. Nests placed on the ground. U. S.

197a. Western Grass Finch—*POECETES GRAMINEUS CONFINIS*. Eggs in my collection of this variety are exactly the same as those of the preceding species. Nesting habits the same. W. U. S.

198. Yellow-winged Sparrow—*COTURNICULUS PASSERINUS*. Clear crystalline-white, dashed and marked with bold markings of reddish-brown, chiefly about the larger end, rounded oval; four to six; .75 by .60. Nests on the ground. U. S.

199. Henslow's Sparrow—*COTURNICULUS HENSLOWI*. White, blotched and speckled reddish-brown, the color becoming more confluent at the greater end; four to six; .76 by .60. Nests and eggs similar to Yellow-winged Sparrow. E. U. S.

201. Sharp-tailed Finch—*AMMODROMUS CAUDACUTUS*. Light green, thickly sprinkled over the entire egg with fine rusty-brown dots, sometimes forming a confluent ring around the greater end; five; .75 by .59. Atlantic Coast, U. S.

202. Sea-side Finch—*AMMODROMUS MARITIMUS*. Grayish-white, spotted and blotched with reddish-brown, the blotches are distributed over the entire egg; five; .88 by .68. Atlantic Coast, U. S.

204. Lark Finch—*CHONDESTES GRAMMICA*. Grayish or soiled-white, spotted with very dark brown, marked with zig-zag, straight and wavy lines of blackish, as in the eggs of some of the orioles; four or five; .85 by .65. Nests on the ground. Ohio to the Pacific—Oregon to Texas.

204a. Western Lark Finch—*CHONDESTES GRAMMICA STRIGATA*. Same as the preceding species; four to six. (See notes.) W. U. S.

206. White-crowned Sparrow—*ZONOTRICHIA LEUCOPHRYS*. Pale bluish-green, thickly spotted, especially about the larger end, with reddish-brown and lighter markings of an obscure purplish-brown; four; .92 by .70. Nests on the ground. E. N. A.

207. Gambel's White-crowned Sparrow—*ZONOTRICHIA GAMBELI*. Bluish-green, thickly spotted with reddish-brown with lighter markings of purplish-brown. In some, confluent about the larger end; four to six; .84 by .67. Nests on the ground. Rocky Mountains to P. C.

207a. Intermediate White-crowned Sparrow—*ZONOTRICHIA GAMBELI INTERMEDIA*. Similar to those of the two preceding species. Nesting habits the same. Middle Province of U. S., north to Alaska.

208. Golden-crowned Sparrow—*ZONOTRICHIA CORONATA*. Light green, with markings of reddish and golden-brown, the whole surface pretty uniformly flecked in small and well-distributed blotches—nowhere numerous or confluent, resembling those of the White-throated Sparrow; four; .81 by .65. Nests on the ground. P. C.

209. White-throated Sparrow—*ZONOTRICHIA ALBICOLLIS*. Pale greenish-white, more or less thickly spotted with rusty-brown; four to seven; .87 by .68. Nests on the ground. E. N. A.

210. Tree Sparrow—*SPIZELLA MONTANA*. Light green, flecked with minute markings of reddish-brown, distributed with great regularity, but so sparsely as to leave the ground distinctly visible; four to five; .85 by .65. Nests on the ground or on low bushes and breeds in high Arctic regions. N. A.

211. Chipping Sparrow—*SPIZELLA DOMESTICA*. Bluish-green, sparsely spotted with purplish and blackish-brown, sometimes in a circle about the larger end; four or five; .70 by .54, *v.* Nests in trees and bushes. N. A.

211a. Western Chipping Sparrow—*SPIZELLA DOMESTICA ARIZONÆ*. Eggs in my collection do not seem to differ essentially from those of the preceding species. Nesting habits the same. Arizona.

212. Clay-colored Sparrow—*SPIZELLA PALLIDA*. Light green, scantily and sharply speckled with sienna and other rich shades of brown, dotting chiefly confined to the larger end, with a speck here and there over the general surface; three and four; .62 by .50. Nests in trees, shrubs or in tufts of weeds. Upper Missouri and high central plains to the Saskatchewan country.

213. Brewer's Sparrow—*SPIZELLA BREWERI*. Bluish-green, blotched in scattered markings of golden-brown, more conspicuous than in those of the Chipping Sparrow; four; .70 by .50. Rocky Mountains of U. S. to P. C.

214. Field Sparrow—*SPIZELLA PUSILLA*. Whitish clay-color, marked more or less fully with blotches of reddish-brown; in some these markings are scattered, in others confluent about the larger end; five; .68 by .42. Nests on the ground or in low bushes. E. U. S.

217. Black Snowbird—*JUNCO HYEMALIS*. Creamy, yellowish-white, marked with spots of reddish-brown, or pale chocolate, confluent around the larger portion of the egg; four or five; .75 by .60. All the species of Snowbirds are said to lay similar eggs. Nests on the ground in mountainous regions. E. U. S.

218. Oregon Snowbird—*JUNCO OREGONUS*. Greenish-white, marked about the larger end with fine dots of reddish-brown; four; .75 by .60. Nesting habits same as those of the preceding species. P. C. of U. S. to Rocky Mts.

224. Black-throated Sparrow—*AMPHISPIZA BILINEATA*. Pure white, with a slight tinge of blue, rounded-oval; .73 by .58. Nests in sage bushes. Valley of Rio Grande and Gila.

225. Bell's Sparrow—*AMPHISPIZA BELLI*. Light greenish-blue, marked with reddish-purple spots, differing in intensity of shade; four. Nests in bushes. Southern California and Valley of Gila and Colorado.

225a. Sagebush Sparrow—*AMPHISPIZA BELLI NEVADENSIS*. Light greenish, marked all over with very fine dots of a reddish-brown, around the larger end a ring of confluent blotches of dark purple and lines of darker brown; almost black; .80 by .60. Nests on the ground or low bushes. Middle Province of U. S.

226. Bachman's Finch—*PEUCÆA ÆSTIVALIS*. Pure white; .74 by .60. Nests on the ground. Georgia-Florida.

228. Cassin's Sparrow—*PEUCÆA CASSINI*. Same as those of the preceding species, but smaller. Nesting habits also similar, but the nest is sometimes placed in bushes. Southern Middle Province—Texas.

229. Rufous-winged Sparrow—*PEUCÆA CARPALIS*. Pale green, unspotted; four; .73 by .58. Nests in bushes a few inches from the ground. Arizona.

230. Rufous-crowned Sparrow—*PEUCÆA RUFICEPS*. Pure white; three or four; .89 by .65. Nests on the ground. Coast of Cal.

231. Song Sparrow—*MELOSPIZA FASCIATA*. Varying from a greenish or pinkish-white to light bluish-green, more or less thickly spotted with dark reddish-brown; five; .82 by .60. Nests on the ground and in low bushes. E. U. S.

231a. Mountain Song Sparrow—*MELOSPIZA FASCIATA FALLAX*. Bluish-white, blotched with reddish brown; .85 by .63. Nesting habits identical with the preceding. Rocky Mountain Region.

231b. Heermann's Song Sparrow—*MELOSPIZA FASCIATA HEERMANNI*. Pale bluish-ash, covered with blotches of reddish-brown; four; .88 by .70, average larger than those of the common Song Sparrow, the nesting habits are similar. Southern California.

231c. Californian Song Sparrow—*MELOSPIZA FASCIATA SAMUELIS*. Darker and considerably larger than those of *M. fasciata*. Coast region of Cal.

233. Swamp Sparrow—*MELOSPIZA PALUSTRIS*. Light green, sometimes light clay, marked and blotched with reddish and purplish-brown spots, varying in size and number, occasionally forming a confluent ring around the greater end; five; .78 by .60. Nests on the ground or in a tussock of rank-grass, in a low, damp place. E. N. A.

234. Lincoln's Finch—*MELOSPIZA LINCOLNI*. Greenish-white, more or less thickly spotted and blotched with different shades of reddish-brown, often so numerous and confluent as to partially conceal the ground; .74 by .56. Nests on the ground. Breeds from Wisconsin and Northern New York, northward. N. A.

235. Fox-colored Sparrow—*PASSERELLA ILIACA*. Light bluish-white, thickly spotted with a rusty-brown, often so fully as to conceal the ground, oblong; four or five; .92 by .70. Nests in low bushes or on the ground. E. N. A.

235c. Slate-colored Sparrow—*PASSERELLA ILIACA SCHISTACEA*. Light green, blotched and marked chiefly at the larger end with golden-brown spots; four; .80 by .67. Nests in bushes and small trees. Middle region of U. S.

237. Chewink; Towhee—*PIPILO ERYTHROPHthalmus*. White, thickly spotted and blotched with light ashy and reddish-brown, rounded oval; four to six; .98 by .79. Nests on the ground in a depression, rarely in trees and bushes. E. U. S.

238. Northern Towhee—*PIPILO MACULATUS ARCTICUS*. White, so thickly covered with fine dots of umber-brown, intermingled with paler markings of lavender and neutral tints that the ground is hardly distinguishable, oval; 1. by .70. Nesting habits similar to those of the preceding species. High Central Plains of Upper Missouri, Yellowstone and Platte.

238a. Spurred Towhee—*PIPILO MACULATUS MEGALONYX*. Greenish-white, speckled with reddish-brown; four or five; 1. by .70. Nesting habits similar to those of the preceding species. Southern Coast of Cal.

238b. Oregon Towhee—*PIPILO MACULATUS OREGONUS*. Greenish-white, very generally and profusely dotted and spotted with fine markings of reddish and purplish-brown. More rounded-oval than eggs of this genus generally are; .95 by .80. Nests on the ground or in bushes. Coast of Oregon and Washington Ter.

239. Green-tailed Towhee—*PIPILO CHLORURUS*. White, with a bluish tint, profusely dotted with pinkish-drab, sometimes so thickly distributed as to give the egg the appearance of a uniform color, or as an unspotted pinkish-drab, and again more sparsely diffused, nearly oval. Nests on the ground and in bushes. Middle Province, U. S.

240. Canon Towhee—*PIPILO FUSCUS MESOLECUS*. Similar to those of the California Brown Towhee. Nesting habits also similar. Valley of Upper Rio Grande.

240a. Saint Lucas Brown Towhee—*PIPILO FUSCUS ALBIGULA*. Light blue, with markings, dots, dashes and lines about the larger end of a deep, dark shade of purplish-brown, so dark as sometimes to be undistinguishable from black; .95 by .72. Nests on the ground and in thickets.

Cape St. Lucas.

240b. Californian Brown Towhee—*PIPILO FUSCUS CRISSALIS*. Light blue, spotted and blotched with varying shades of dark and light purple, in some the color is not distinguishable from black, except in a strong light; .98 by .75. Nests in trees and bushes. (See notes.)

Coast of Cal.

241. Abert's Towhee—*PIPILO ABERTI*—Bluish-white, with brown spots and streaks in a ring near the larger end, varying in number; 1. by .70. Nests in small trees and clustering bushes.

Base of Rocky Mts. in New Mexico.

242. Cardinal Grosbeak—*CARDINALIS VIRGINIANUS*. White, generally thickly marked with spots of ashy or reddish-brown and faint lavender tints, sometimes so thickly marked that little of the ground is seen. They resemble very closely the eggs of the common Cowbird; four, 1. by .80. Nests in trees and bushes.

E. U. S.

242a. Saint Lucas Cardinal—*CARDINALIS VIRGINIANUS IGNEUS*. Eggs and nesting habits similar to those of the preceding species.

Cape St. Lucas.

243. Texan Cardinal—*PYRRHULOXIA SINUATA*. Chalky-white, with blotches of a light umber-brown and a number of indistinct markings of purple; the spots vary greatly in size and distribution; four; 1. by .80. Nesting habits similar to those of the preceding.

Valley of the Rio Grande of Texas.

244. Rose-breasted Grosbeak—*ZAMELODIA LUDOVICIANA*. Greenish-white, more or less spotted over the entire surface with blotches of reddish-brown; four; 1. by .75, 2. by .65. Nests in trees, on the edge of woods, or on the bank of a stream.

E. N. A.

245. Black-headed Grosbeak—*ZAMELODIA MELANOCEPHALA*. Bluish-green, blotched and sprinkled with markings of reddish and rusty-brown, more numerous about the larger end, oblong-oval; four; 1. by .68. Nests in trees. (See Notes.)

High Central Plains from Yellowstone to Pacific.

246. Blue Grosbeak—*GUIRACA CÆRULEA*. Light blue, when blown; when exposed to light a little while fades into a dull white, oval; four; .98 by .62. Nests in low trees. (See Notes.)

U. S. Southerly from Atlantic to Pacific.

248. Indigo Bunting—*PASSERINA CYANEA*. White, with a bluish tinge unspotted, or rarely thinly dotted with brown; four or five; .75 by .58. Nests in low bushes. (See Notes.)

E. U. S.

249. Lazuli Bunting—*PASSERINA AMENA*. Light blue when fresh, on the least exposure fades into bluish-white, oval; five; .74 by .58. Nests in bushes. (See Notes.)
High Central Plains to the Pacific.

251. Painted Bunting; Nonpareil—*PASSERINA CIRIS*. Dull pearly-white, marked with dots and blotches of reddish-brown; four or five; .80 by .65. Nests in hedges and low branches of trees. (See Notes.)
South Atlantic and Gulf States.

254. Black-throated Bunting—*SPIZA AMERICANA*. Light blue, almost exactly like those of the Bluebird; four or five; .80 by .60. Nests on the ground, or in trees and bushes.
E. U. S.

256. Lark Bunting—*CALAMOSPIZA BICOLOR*. Uniform light blue, rounded-oval; four or five; .90 by .70. Nests on the ground.
High Central Plains to the Rocky Mountains.

257. Bobolink—*DOLICHONYX ORYZIVORUS*. Dull white, variously tinged with light drab, olive, reddish and grayish-brown, intermingled with lavender; five or six; .90 by .70. Nests on the ground, usually well concealed.
E. N. A.

258. Cowbird—*MOLOTHRUS ATER*. White, more or less thickly spotted and dotted with ashy or reddish-brown, rounded-oval; .85 by .65, *v.* The Cowbird lays its eggs in the nests of other smaller birds, and usually deposits a single egg, but as many as five have been found in a nest. The exact number the female lays is not known.
U. S.

260. Yellow-headed Blackbird—*XANTHOCEPHALUS ICTEROCEPHALUS*. Pale greenish-white, profusely covered with blotches and small dottings of drab, purplish-brown and umber, oblong-oval; four to six; 1. by .70. Nests in tall grasses in marshes.
W. N. A.

261. Red-and-buff-shouldered Blackbird—*AGELÆUS PHŒNICEUS*. Light blue, marbled, lined and blotched with markings of light and dark purple and black, almost entirely about the larger end, but vary considerably; four to six; 1. by .75. Nests in the low willows of swamps.
Temperate N. A.

261*a*. Red and-black-shouldered Blackbird—*AGELÆUS PHŒNICEUS GUBERNATOR*. Light blue or bluish-white, marked around the larger end with waving lines of dark brown; four; 1. by .75. Nests in tussocks of grass in marshes.
Pacific Province of U. S.

262. Red-and-white-shouldered Blackbird—*AGELÆUS TRICOLOR*. Light blue, marked around the larger end with a circle of ashy-brown, sometimes black, irregular lines and blotches; four to six. Nests in bushes in the vicinity of water.
Pacific Province, U. S.

263. Meadow Lark—*STURNELLA MAGNA*. White, more or less thickly spotted or dotted with reddish-brown; five or six; 1.10 by .80. Nests on the ground. E. N. A.

264. Western Meadow Lark—*STURNELLA NEGLECTA*. White, sparingly spotted and dotted with markings of reddish and purplish-brown. The dottings are finer than in the eggs of the eastern species; five or six; 1.10 by .82. (See notes.) W. N. A.

266. Audubon's Oriole—*ICTERUS AUDUBONI*. Dull-white, scattered over with faint markings of purple and dots and irregular zigzag lines of dark brown and darker purple, sometimes almost black; four; .89 by .70. Nests in trees. Valley of the Lower Rio Grande of Texas.

268. Scott's Oriole—*ICTERUS PARISORUM*. Dull-white, bluish tint, variously marked with small blotches and fine dottings of purplish-brown, approaching black; four; .90 by .65. Nests in small cactus trees. Valley of the Rio Grande.

269. Hooded Oriole—*ICTERUS CUCULLATUS*. White, marbled, blotched and dotted with large dashes and irregular zigzag lines of purple, brown and black, chiefly at the larger end; five; .94 by .64. Nests generally in sycamores and live oaks. (See notes.) Valley of the Lower Rio Grande—Lower Cal.

270. Orchard Oriole—*ICTERUS SPURIUS*. Pale bluish-ground, marked with dots and zigzag lines of light and dark brown, running into black; four; .85 by .55, *v.* Nests in trees, especially along the banks of streams. E. U. S.

271. Baltimore Oriole—*ICTERUS GALBULA*. White, with a slight roseate tinge when fresh, fading into a bluish tint when blown, marked with blotches, lines and scrawls, irregularly distributed over the surface, usually thickest about the larger end, forming a wreath; four to six; .92 by .60. Nests in trees; the nest is pensive and nearly a cylindrical pouch suspended from the extremity of a branch. U. S. to Rocky Mountains.

272. Bullock's Oriole—*ICTERUS BULLOCKI*. Creamy-white with a bluish tinge, marbled with blotches and irregular lines of dark umber, deepening almost into black, chiefly around the larger end; four to six; .85 by .65. Nesting habits almost precisely the same as those of the Baltimore Oriole. High Central Plains to the Pacific.

273. Rusty Blackbird—*SCOLECOPHAGUS FERRUGINEUS*. Light green, very thickly covered with blotches and dottings of purplish and reddish-brown, without streaks and lines; four to six; 1.02 by .75. Nests in low trees and bushes in the vicinity of water, like the Red-and-buff shouldered Blackbird. E. N. A.

274. Brewer's Blackbird—*SCOLECOPHAGUS CYANOCEPHALUS*. Dull greenish-white, with numerous streaks and blotches of dark brown; in some the markings are very large and of a lighter shade, in others smaller, but so numerous as to conceal the ground-color; four or five; 1. by .72, 7. Nests in low trees. Great Central Plains to the Pacific.

275. Great-tailed Grackle—*QUISCALUS MACRURUS*. Pale gray or rusty, with irregular black marks, stripes, lines and spots; four; 1.30 by .90. Nests in the highest trees. Mexico and Central America—Eastern Texas.

277. Boat tailed Grackle—*QUISCALUS MAJOR*. Brownish-drab, some tinged with olive, others with green, marked with irregular lines and blotches of brown and black; five; 1.28 by .95. Nests in tall reeds and in high trees in the vicinity of water. South Atlantic and Gulf States of N. A.

278. Purple Grackle—*QUISCALUS PURPUREUS*. Light greenish-white, with large dashes and irregular streaks of black and brown, in some chiefly at the larger end; in others the ground-color is of a rusty-brown, these are marked chiefly about the larger end with cloudy blotches of the same color; four to six; 1.25 by .90. Nests in trees and bushes. Atlantic Coast of United States.

278a. Florida Grackle—*QUISCALUS PURPUREUS AGLEUS*. Similar to those of the preceding species; 1.17 by .85. Nesting habits similar. Florida.

278b. Bronzed Grackle—*QUISCALUS PURPUREUS ENEUS*. Light greenish or smoky blue, with irregular lines, dots, blotches and scrawls distributed over the surface; four to six; 1.13 by .83. Nests in bushes and high trees. Mississippi region of U. S.

280. American Raven—*CORVUS CORAX CARNIVORUS*. Light green, with dots and blotches of purple and purplish-brown, in some chiefly at the larger end, in others scattered over the entire egg; six; 2. by 1.30. Nests in trees, sometimes on high rocks. N. A.

281. White-necked Raven—*CORVUS CRYPTOLEUCUS*. Light green, marked with fine dots of purple, brown and lilac; four to six; 1.85 by 1.25. Nesting habits similar to those of the preceding species. Valley of the Rio Grande and Gila

282. Common Crow—*CORVUS FRUGIVORUS*. Light sea-green, more or less thickly spotted and blotched with dark-brown, almost black, with purplish reflections; these are chiefly about the larger end, but great variations exist both in ground-color and markings; four to six; 1.50 by 1.15. Nests in trees. U. S.

282a. Florida Crow—*CORVUS FRUGIVORUS FLORIDANUS*. Similar to those of the Common Crow. Nesting habits similar. S. Florida.

282b. Northwestern Fish Crow—*CORVUS FRUGIVORUS CAURINUS*. Dark green, thickly marked with dark brown and olive; four or five; 1.60 by 1.10. Nests in trees. Northwestern Coast U. S.

283. Fish Crow—*CORVUS OSSIFRAGUS*. Resemble those of the Common Crow; five or six; 1.35 by 1.10. Nests in trees. Atlantic Coast:

285. Maximilian's Nutcracker; Pinon Jay—*GYMNOCITTA CYANOCEPHALA*. Greenish white, spotted everywhere with small blotches of light brown and purple, in some a faint reddish tinge; four; 1.25 by .87. Nests in high trees. Rocky Mountains of Colorado.

286. Black-billed Magpie—*PICA RUSTICA HUDSONICA*. Grayish-white, with a yellowish tinge, spotted dashed and dotted with markings of purplish or violet-brown; five to nine; 1.35 by 1.07. Nests in small bushy trees. The nest is dome-shaped. (See Notes.) N. N. A.

287. Yellow-billed Magpie.—*PICA NUTTALLI*. Light drab, so thickly marked with fine cloudings of an obscure lavender color as nearly to conceal the ground and to give the egg the appearance of an almost violet-brown; six; 1.20 by .92. Nests similar to the Black-billed Magpie. (See Notes.) Cal.

289. Blue Jay—*CYANOCITTA CRISTATA*. Brownish-olive and occasionally olive-drab, thickly spotted with olive-brown; five; 1.10 by .85. Nests in trees and bushes. E. N. A.

290. Steller's Jay—*CYANOCITTA STELLERI*. Pale green, marked with small olive-brown spots; five to seven; 1.22 by .90. Nests in trees or bushes. Pacific Coast of N. A.

290c. Long-crested Jay—*CYANOCITTA STELLERI MACROLOPHA*. Light green, with fine markings of dark olive-brown and lighter cloudings of purplish or violet-brown; six; 1.30 by .91. Nests in trees and bushes. Rocky Mountains of U. S.

291. Florida Jay—*APHELOCOMA FLORIDANA*. Light blue, sparingly sprinkled with rufous and black, the spots being larger and more numerous towards the larger end; three to five; 1.15 by .65. Nests in trees or bushes. Fla.

292. Woodhouse's Jay—*APHELOCOMA WOODHOUSEI*. Light bluish-green, marked with reddish-brown specks, thickest at the larger end, rounded-oval; four; 1.06 by .80. Nests in tangled thickets. Rocky Mountains and Middle Province U. S.

293. California Jay—*APHELOCOMA CALIFORNICA*. Dark sea-green, marked with numerous pale brown blotches, chiefly at the larger end; three to five; 1.10 by .80. Nests in trees or bushes. (See Notes.)

Pacific Province of U. S.

297. Canada Jay—*PERISOREUS CANADENSIS*. Light gray, with a yellowish tinge, finely marked more abundantly at the larger end with dots and blotches of slate color and brown, with faint cloudings of an obscure lilac; four; 1.20 by .82. Nests in trees.

E. N. A.

297a. White-headed Jay—*PERISOREUS CANADENSIS CAPITALIS*. Grayish-white, marked with dots and blotches of slate and brown. The markings are larger, more confluent, and not so distinct as in the eggs of the Canada Jay; three to five; 1.12 by .86. Nests in trees.

Rocky Mountains—Colorado.

300. Shore Lark—*EREMOPHILA ALPESTRIS*. Light drab, thickly and uniformly spotted with various shades of brown; four or five; .95 by .62. Nests on the ground.

N. A.

301. Scissor-tailed Flycatcher—*MILVULUS FORFICATUS*. White, marked with a few dark red spots and occasionally of an obscure purple, chiefly at the larger end; four; .84 by .60. Nests in trees. (See Notes.)

Middle America and open portions of Texas.

303. Gray Kingbird—*TYRANNUS DOMINICENSIS*. Creamy-white, marked with large blotches and spots of purple, reddish-brown and dark purplish-brown; four; 1.02 by .71. Nests in trees.

Florida.

304. Kingbird; Bee Martin—*TYRANNUS CAROLINENSIS*. White, with a more or less roseate tinge, marked with blotches of purple, brown and reddish-brown; five and six; .95 by .70. Nests in trees.

N. A.

306. Western Kingbird—*TYRANNUS VERTICALIS*. Same as those of the preceding species. Nesting habits similar.

Western Province U. S.

307. Cassin's Kingbird—*TYRANNUS VOCIFERANS*. White, with a fleshy tint, marked with large, scattered reddish-brown and umber blotches; four; .93 by .70. Nests in trees.

Valley of Gila, Southern Cal.

312. Great-crested Flycatcher—*MYIARCHUS CRINITUS*. Remarkable for their coloration, having a ground of buffy-brown, streaked longitudinally by lines and markings of purple and darker brown; four to six; 1. by .75. Nests in the natural cavities of trees and boxes put up for the purpose.

E. N. A.

313. Ash-throated Flycatcher—*MYIARCHUS CINERASCENS*. Buffy-brown, with a pinkish hue, the markings are more oblong plashes of irregular

shape, and there are more and larger blotches of a light purplish-brown than in the eggs of the Great-crested Flycatcher; .95 by .72. Nests in holes of trees. Coast of Cal.

315. Phoebe Bird; Pewee—*SAYORNIS FUSCUS*. Pure white, sometimes sparsely spotted with reddish-brown at the larger end; five; .80 by .60. Nests in stone culverts, bridges, under the roofs and against the walls of old houses and barns. Nest is composed of mud, twigs and feathers. E. U. S.

316. Say's Pewee—*SAYORNIS SAYI*. White; four; .80 by .62. Nesting habits similar to those of the Phoebe Bird. Missouri and High Central Plains to Pacific.

317. Black Pewee—*SAYORNIS NIGRICANS*. Pure white, occasionally dotted with reddish-brown as in the case of the common Pewee; five; .75 by .60. The nesting habits are the same. Cal.

318. Olive-sided Flycatcher—*CONTOPUS BOREALIS*. Creamy-white, marked about the greater end with a confluent ring of purple, lavender, and brown spots, resembling those of the Wood Pewee; four; .82 by .62. Nests usually in evergreen trees. Temperate N. A.

320. Wood Pewee—*CONTOPUS VIRENS*. Creamy-white, with a ring of lavender and purplish or reddish-brown, in confluent spots near the larger end; four; .75 by .52. Nests in trees. E. U. S.

321. Western Wood Pewee—*CONTOPUS RICHARDSONI*. Similar to those of eastern species; three is the usual number. Nesting habits similar. High Central Plains to Pacific.

322. Yellow-bellied Flycatcher—*EMPIDONAX FLAVIVENTRIS*. Rosy-white tint, spotted with a light shade of brown; four; .68 by .52. Nests on or near the ground. N. A.

324. Acadian Flycatcher—*EMPIDONAX ACADICUS*. Light yellowish-buff, with a decided flesh-color tint when fresh, sparsely spotted with light brown; two to four. Nests in trees. (See Notes.) E. U. S.

325. Little Flycatcher—*EMPIDONAX PUSILLUS*. White, with a fleshy tinge, marked with reddish-brown and faint slate-colored blotches at the larger end; four; .75 by .52. Nests in trees. High Central Plains to Pacific.

325a. Traill's Flycatcher—*EMPIDONAX PUSILLUS TRAILLI*. Cream or buff, marked with blotches of reddish-brown, in some there are only small dots sprinkled over the surface; three; .70 by .50. Nests in small trees or bushes. (See Notes.) E. U. S.

326. Least Flycatcher—*EMPIDONAX MINIMUS*. Pure white, unspotted; four; .62 by .50. Nests in small saplings. E. N. A.
327. Hammond's Flycatcher—*EMPIDONAX HAMMONDI*. White; four; .70 by .50. Nests in small bushes. W. U. S.
328. Wright's Flycatcher—*EMPIDONAX OBSCURUS*. White, unspotted; three; .73 by .60. Nests in small trees. Middle Province U. S.
335. Ruby-throated Hummingbird—*TROCHILUS COLUBRIS*. Pure white, nearly spherical; two; .50 by .35. The eggs of all the Hummingbirds are alike in color and shape. Nests in trees. N. A. East of Rocky Mts.
336. Black-chinned Hummingbird—*TROCHILUS ALEXANDRI*. White; two; .51 by .32. Nests in trees. Coast of California Southward.
337. Costa's Hummingbird—*CALYPTE COSTE*. White; two; .49 by .32. Nests in trees. Mexico and Southern California.
338. Anna's Hummingbird—*CALYPTE ANNE*. White; two; .60 by .41. Nests in trees. Mexico and Coast Region of California.
339. Broad-tailed Hummingbird—*SELASPHORUS PLATYCERCUS*. White; two; .55 by .35. Nests in trees and bushes. Middle Province U. S.
340. Rufous Hummingbird—*SELASPHORUS RUFUS*. White; two; .45 by .33. Nests in trees and bushes. West Coast of N. A.
341. Allen's Hummingbird—*SELASPHORUS ALLENI*. White; two; .50 by .35. Nests in trees and bushes. Coast of California.
351. Chimney Swift—*CHÆTURA PELASGICA*. Pure white; four to six; .75 by .50. The nest is made of twigs broken from trees by the bird while on the wing; these are glued together and to the side of the chimney by saliva of the bird. It is a neat, basket-like structure. E. U. S.
353. Chuck-will's-widow—*ANTHROSTOMUS CAROLINENSIS*. Clear crystal-white, marked over the entire surface with blotches of dark purplish-brown and cloudings of a grayish-lavender, with occasional markings of raw umber-brown; two; 1.44 by 1.06. Eggs laid in a depression of the ground. South Atlantic and Gulf States.
354. Whip-poor-will—*CAPRIMULGUS VOCIFERUS*. Clear cream-white, spotted, marbled and irregularly marked with purplish-lavender, mingled with reddish-brown; two; 1.25 by .88. Eggs laid in a depression of the ground. E. U. S.

355. Poor-will—*PHALÆNOPTILUS NUTTALLI*. White, unspotted; two; 1.05 by .80. Nests on the ground. High Central Plains to Pacific.
357. Nighthawk—*CHORDEILES POPETUE*. Grayish, thickly mottled with varied tints of darker gray, slate and yellowish-brown; two; 1.30 by .90. Eggs laid on the ground, in a slight depression. U. S.
- 357a. Western Nighthawk—*CHORDEILES POPETUE HENRYI*. Clay-color, with small spots and cloudings of yellowish-brown, mingled with lilac; two; 1.25 by .92. Eggs laid in a depression of the ground. W.N.A.
358. Texan Nighthawk—*CHORDEILES ACUTIPENNIS TEXENSIS*. Grayish, or thickly marked on a white ground with small irregular confluent spots, which are a blending of black, umber and purplish-gray; two; 1.18 by .89. Eggs laid on the ground in a slight depression. Basins of the Rio Grande, Gila.
359. Ivory-billed Woodpecker—*CAMPEPHILUS PRINCIPALIS*. Crystal-white; four or five; 1.35 by .95. Nests in cavities of dead trees, excavated by the birds. Southern Atlantic and Gulf States.
360. Hairy Woodpecker—*PICUS VILLOSUS*. Pure, crystal-white; five or six; 1. by .72. Nest excavated in trunks of trees, sometimes in the trunk of an apple tree. N. A.
361. Downy Woodpecker—*PICUS PUBESCENS*. Glistening white; four or five; .75 by .62. Nest excavated in the trunk of a small dead tree, often in the dead limb of an apple tree, or in a post or rail of a fence. (See Notes.) E. U. S.
362. Red-cockaded Woodpecker—*PICUS QUERULUS*. White, less glossy than those of the other species; four; .95 by .70. Nests in holes of decayed trees. S. U. S.
363. Texan Sapsucker—*PICUS SCALARIS*. White, not so glossy as those of the Downy; four; 1. by .75. Nesting habits same. S. U. S.
366. White-headed Woodpecker—*XENOPICUS ALBOLARVATUS*. Pure, crystalline-white, more than usually oblong-oval for a Woodpecker; five; .99 by .74. Nests in cavities of tall, dead trees or stumps. Oregon and Cal.
367. Black backed Three-toed Woodpecker—*PICOIDES ARCTICUS*. Pure ivory-white; four to six; .91 by .72. This bird is said to excavate cavities in live trees for nesting purposes. N. N. A.
369. Yellow-bellied Woodpecker—*SPHYRAPICUS VARIUS*. Glossy white;

four to six; .95 by .70. The nest of this bird is excavated in some high dead tree.

E. N. A.

371. Pileated Woodpecker; Logcock—*HYLOTOMUS PILEATUS*. Glistening white; six; 1.25 by 1.02. The nesting place is excavated by the bird in a large limb or trunk of a high tree, either living or dead. (See Notes.)

Timber regions of N. A.

372. Red-bellied Woodpecker—*CENTURUS CAROLINUS*. White; five; 1.05 by .85. Nest excavated in the dead limb or trunk of a high tree.

E. U. S.

375. Red-headed Woodpecker — *MELANERPES ERYTHROCEPHALUS*. Glossy white; five; 1.10 by .85, *v.* Nests excavated in a dead limb or trunk of a tree, frequently excavated in living wood.

Temperate N. A.

376. Lewis's Woodpecker — *MELANERPES TORQUATUS*. Crystalline white; five; 1.10 by .90. Nesting habits similar to those of the Red-headed Woodpecker.

W. A.

377. Californian Woodpecker — *MELANERPES FORMICIVORUS BAIRDI*. White; four or five; 1.12 by .90. Nest excavated in the body of a high tree.

P. C.

378. Yellow-shafted Flicker—*COLAPTES AURATUS*. Glossy white; five to seven; 1.09 by .88. Nest excavated in a dead trunk, usually at a considerable height.

E. N. A.

378*b.* Red shafted Flicker—*COLAPTES AURATUS MEXICANUS*. Pure glossy white; five to seven; 1.10 by .88. Nesting habits similar to those of the preceding species.

W. N. A.

382. Belted Kingfisher—*CERYLE ALCYON*. Clear shining white, nearly spherical; five to seven; 1.30 by 1.05. The nest is an excavation in the face of a high bank of a stream or in the side of an artificial excavation.

North and Middle America.

383. Texan Kingfisher—*CERYLE AMERICANA CABANISI*. Pure crystal-white; five to seven; 1.06 by .61. Nesting habits similar to those of the preceding species.

Rio Grande region of Texas,

385. Road-runner; Chapparral Cock — *GEOCOCCYX CALIFORNIANUS*. Dirty-white; two to six; 1.59 by 1.20. Nests in trees, usually in the low branches of a cactus.

Middle Texas, New Mexico and California.

387. Yellow-billed Cuckoo—*COCCYZUS AMERICANUS*. Light bluish-green, fading upon the least exposure to light; two to five; 1.12 by .83. Nests in trees or in clusters of briars or bushes.

N. A. east of Rocky Mts.

388. Black-billed Cuckoo — *COCCYZUS ERYTHROPHthalmus*. Light bluish-green; four; 1.30 by .85. Nesting habits similar to the Yellow-bill. E. U. S.

392. Carolina Parakeet—*CONURUS CAROLINENSIS*. It is said the eggs of this species are greenish-white and about the size of those of the common Turtle Dove. Nests in the natural cavities of trees.

South Atlantic and Gulf States.

394. American Barn Owl—*ALUCO FLAMMEUS AMERICANUS*. White; three to six; 1.80 by 1.25. Nests in the cavities of trees, crevices of rocks and nooks of buildings. N. A.

395. American Long-eared Owl—*ASIO AMERICANUS*. White, elliptical; four or five; 1.55 by 1.30. Nests on the ground, in low bushes or in trees; sometimes an old Hawk's or Crow's nest is occupied. (See Notes.)

Temperate N. A.

396. Short-eared Owl—*ASIO ACCIPITRINUS*. White, elliptical; four or five; 1.50 by 1.25. Nests on the ground, or in low bushes. In some localities excavates short burrows in banks. N. A.

397. Barred Owl—*STRIX NEBULOSA*. White, oval; three or four; 2. by 1.65. Nests in natural cavities of trees or on the branches, sometimes in a deserted Hawk's or Crow's nest. N. A.

399. Great Gray Owl—*ULULA CINEREA*. Pure white, surface very smooth; three or four; 2. by 1.60. Nests in trees. The nest is composed of sticks and lined with feathers. N. N. A.

400. Richardson's Owl—*NYCTALE TENGMALMI RICHARDSONI*. White, surface very smooth; four or five; 1.28 by 1.06. Nests in holes of trees. S. U. S.

401. Saw-whet Owl—*NYCTALE ACADICA*. White, chalky in appearance, nearly elliptical; four; 1.21 by .95. Nests in holes of trees.

Temperate N. A.

402. Little Screech Owl—*SCOPS ASIO*. Pure white, nearly round; five to seven; 1.38 by 1.19. Nests in a hollow trunk or in a decaying apple tree. N. A.

402*b*. Texan Screech Owl—*SCOPS ASIO MACCALLI*. Same as those of the preceding species and the nesting habits the same.

Western and Southwestern N. A.

405. Great Horned Owl—*BUBO VIRGINIANUS*. Pure white, quite spherical; three or four; 2.30 by 2. Nests in the natural cavities of trees or on the branches, sometimes occupy the deserted nest of a hawk.

E. U. S.

405a. Western Horned Owl—*BUBO VIRGINIANUS SUBARCTICUS*. Same as those of the preceding species and the nesting habits are the same. (See Notes.)

406. Snowy Owl—*NYCTEA SCANDIACA*. White, oval-oblong, with very smooth surface; three or four; 2.25 by 1.85. Nests placed on the ground. N. N. A.

407. American Hawk Owl—*SURNIA FUNEREA*. White, spherical; six or seven; 1.50 by 1.20. Nests in holes of trees or on the branches. N. N. A.

408. Burrowing Owl—*SPEOTYTO CUNICULARIA HYPOGÆA*. Pure white, nearly round; four to seven; 1.22 by 1.05. Nests placed in holes in the ground, but they are not always excavated by the birds, as the name would indicate. W. U. S.

412. White Gyr Falcon—*HIEROFALCO GYRFALCO CANDICANS*. Varying from a creamy-white to yellowish-brown, profusely sprinkled with reddish-brown of varying shades, usually so dense as to almost conceal the ground color; two to four; 2.45 by 1.75. Nests in rocky cliffs. N. N. A.

413. Prairie Falcon—*HIEROFALCO MEXICANUS POLYAGRUS*. Cream or pinkish-white, marked with blotches of chestnut and reddish-brown, more or less confluent at either end; two to four; 2.25 by 1.75. Nests placed on rocky cliffs. W. N. A.

414. American Peregrine Falcon; Duck Hawk—*FALCO PEREGRINUS NÆVIUS*. Creamy-white to reddish-brown, spotted, dotted and blotched with reddish-brown and chocolate of varying shades, sometimes so thickly covered as to obscure the ground; two to four; 2.25 by 1.75. Nests placed on rocky cliffs. N. A.

417. Pigeon Hawk—*ÆSALON COLUMBARIUS*. Varying from a whitish to a deep reddish-brown, spotted, dotted and blotched irregularly and usually very thickly with reddish-brown of varying shades; four to six; 1.80 by 1.25. Nests on rocky cliffs, branches and in holes of trees. N. A.

420. Sparrow Hawk—*TINNUNCULUS SPARVERIUS*. Reddish, or light buff, blotched and dotted with light and dark brown, at times confluent enough as to conceal the ground; five; 1.35 by 1.13. Nests in holes of trees, either in natural cavities or those made by woodpeckers. N. A.

423. Caracara Eagle—*POLYBORUS CHERIWAY*. Yellowish-white or creamy, blotched, spotted and sprinkled with reddish-brown of varying shades; two to four; 2.40 by 1.90. Nests in trees and bushes.

Middle America—Southern border of U. S.

425. American Osprey; Fish Hawk—*PANDION HALIAETUS CAROLINENSIS*. Yellowish or creamy-white, spotted and blotched with reddish-brown and umber, so thickly at the larger end as to completely obscure the ground; three or four; 2.40 by 1.70. Nests in trees. (See Notes.)

N. A.

426. Swallow-tailed Kite—*ELANOIDES FORFICATUS*. White, or greenish-white, spotted and blotched with brown and umber of varying shades; four to six; 1.90 by 1.50. Nests in high trees.

S. U. S.

427. White-tailed Kite—*ELANUS GLAUCUS*. Dull creamy-white, thickly blotched, dotted and tinged with deep chestnut, in some almost completely covering the whole ground, near spherical; four; 1.64 by 1.27. Nests placed in high trees. (See Notes.)

Tropical America.

428. Mississippi Kite—*ICTINIA SUBCERULEA*. Greenish-white, thickly spotted with deep chocolate-brown and black; two or three; 1.52 by 1.30. Nest placed in trees.

S. U. S.

429. Everglade Kite—*ROSTRHAMUS SOCIABILIS PLUMBEUS*. Bluish-white, spotted and blotched irregularly with brown and umber of varying shades; one or two; 1.65 by 1.45. Nests in bushes.

West Indies and Southern Florida.

430. Marsh Hawk—*CIRCUS HUDSONIUS*. Greenish-white, either immaculate or faintly spotted with pale brown or lilac, rather oval; four to six; 1.80 by 1.42. Nest placed on the ground.

N. A.

431. Cooper's Hawk—*ACCIPITER COOPERI*. Pale bluish-white, usually spotted with pale reddish-brown; two to four; 1.94 by 1.56. Nest placed in high trees.

Temperate N. A.

432. Sharp-shinned Hawk—*ACCIPITER FUSCUS*. Bluish-white, coarsely spotted and blotched with chestnut and umber of varying shades, spherical; 1.45 by 1.15. Nest placed in trees, sometimes on rocks.

N. A.

433. American Goshawk—*ASTUR ATRICAPILLUS*. Bluish-white, sometimes faintly spotted with yellowish-brown; three or four; 2.30 by 1.80. Nest placed in trees.

B. A., N. U. S.

434. Harris's Hawk—*ANTENOR UNICINCTUS HARRISI*. White, with a yellowish tinge, sometimes marked with light dashes of yellowish-brown and dottings of purplish-drab; three to five; 2.13 by 1.69. Nest placed in low trees.

Middle or Northern Tropical America, S. U. S.

436. Red-tailed Hawk—*BUTEO BOREALIS*. Bluish-white, spotted and blotched with brown and umber of varying shades; three to four; 2.40 by 2. Nest placed in high trees.

N. A.

436*b*. Western Red-tail—*BUTEO BOREALIS CALURUS*. Dirty bluish-white, marked more or less over the entire surface with dashes, lines and blotches of a light tint of brown, mixed with lighter purplish-brown. These markings run with the length of the egg; two to four; 2.25 by 1.79. Nest placed in trees. W. N. A.

439. Red-shouldered Hawk—*BUTEO LINEATUS*. Bluish-white, spotted and blotched irregularly with brown and umber of varying shades; three or four; 2.20 by 1.75. Nest placed in high trees. U. S.

439*a*. Red-bellied Hawk—*BUTEO LINEATUS ELEGANS*. Dingy-white, with a brownish tinge marked with blotches of an umber color; these look as though they were hastily brushed over lengthwise of the egg; three or four; 2. by 1.79. The nest is placed in tall trees. W. U. S.

442. Swainson's Hawk—*BUTEO SWAINSONI*. Yellowish-white, spotted and blotched irregularly and rather faintly with reddish-brown, with occasional markings of purple; four to six; 2.30 by 1.75. Nest placed in trees or bushes. W. U. S.

443. Broad-winged Hawk—*BUTEO PENNSYLVANICUS*. Grayish or dirty-white, spotted and blotched with light umber, reddish, yellowish and purplish-brown, with a dull shading approaching black; three or four; 2.09 by 1.61. Nest placed in trees. E. N. A.

447. American Rough-legged Hawk—*ARCHIBUTEO LAGOPUS SANCTI-JOHNIS*. Yellowish-white, with faint markings and blotches of a purplish-brown, over these are diffused confluent blotches of russet-brown; four; 2.10 by 1.74. Nests in trees and on rocks. N. A.

449. Golden Eagle—*AQUILA CHRYSÆTUS CANADENSIS*. Creamy or dirty-white, occasionally immaculate, but usually spotted and blotched with pale reddish-brown, sometimes there is added a faint tinge of purple, nearly spherical; three; from 2.65 to 3. in length by from 2.35 to 2.15 in breadth. Nests on the shelves of steep and rocky cliffs. N. A.

451. Bald Eagle; Gray Eagle—*HALIÆTUS LEUCOCEPHALUS*. Ashy or dirty-white, unspotted; two to four. They measure about three inches by 2.75. Nest is usually placed in high trees, sometimes on rocky cliffs. N. A.

453. Californian Condor—*PSEUDOGRYPHUS CALIFORNIANUS*. Pale greenish-blue, unspotted; two or three; 4.40 by 2.50. Nests on the ground or on the bare rocks of solitary peaks. W. N. A.

454. Turkey Buzzard—*CATHARTES AURA*. Creamy or yellowish-white, variously blotched and splashed with different shades of brown and usually

showing other smaller spots of lavender and purplish-drab; two; 2.65 by 1.85. Nests on the ground, on rocks, in hollow trees and stumps, and in old buildings. U. S.

455. Black Vulture; Carrion Crow—*CATHARISTA ATRATA*. Yellowish or creamy-white, blotched and spotted with very dark-brown and umber; two; 3. by 2.10. Nests on the ground or in old logs.

Tropical and warmer portion of America.

456. Band-tailed Pigeon—*COLUMBA FASCIATA*. White; two; 1.50 by 1.19. Nests on the ground. Pacific Province of U. S.

457. Red-billed Pigeon—*COLUMBA ERYTHRINA*. Creamy-white; two; 1.18 by .90. Nest in trees, stumps and sometimes on the ground.

Lower Rio Grande and Mexico.

458. White-crowned Pigeon—*COLUMBA LEUCOCEPHALA*. Opaque-white; two. Nests in trees, high or low, according to circumstances.

Southern Keys of Florida.

459. Passenger Pigeon—*ECTOPISTES MIGRATORIA*. White; two; 1.45 by 1.05. Nests in trees, usually breeds in vast communities. N. A.

460. Mourning Dove—*ZENAIIDURA CAROLINENSIS*. Pure white, elliptical; two; 1.05 by .86. Nests in trees, on stumps, rocks, and on the ground. U. S.

462. Zenaida Dove—*ZENAIIDA AMABILIS*. White; two; 1.30 by .90. Nests on the ground or in bushes or trees. Florida Keys.

464. White-winged Dove—*MELOPELIA LEUCOPTERA*. White, oval; two; 1.35 by .92. Nests in trees and bushes. S. U. S.

465. Ground Dove—*CHAMÆPELIA PASSERINA*. Bright white or creamy, slightly more pointed at one end than the other; two; .85 by .63. Nests usually in low shrubs. South Atlantic and Gulf Coast.

466. Scaled Dove—*SCARDAFELLA INCA*. White; two; .91 by .70. Nests in trees and bushes. Rio Grande Valley.

467. Key West Dove—*GEOTRYGON MARTINICA*. Pure white; two; about the size of the White-crowned Pigeon. Nests on the ground or low bushes. Key West, Fla.

468. Blue-headed Dove—*STARŪENAS CYANOCEPHALA*. Pure white, surface very smooth; two; 1.40 by 1.08. Nests on the ground or in trees or bushes. West India Islands—Key West, Fla.

469. Chachalaca; Texan Guan—*ORTALIS VETULA MACCALLI*. Dirty-white; six to eight; 2.35 by 1.65. Nests on the ground.

Valley of the Rio Grande.

470. Mexican Turkey—*MELEAGRIS GALLOPAVO*. Eggs and nesting habits similar to the common Wild Turkey. Mexico.

470*a*. Wild Turkey—*MELEAGRIS GALLOPAVO AMERICANA*. Dark buff or cream color, thickly sprinkled with rusty-brown or umber spots; ten to fifteen; 2.35 by 1.87. Nests on the ground. E. U. S.

471. Dusky Grouse—*CANACE OBSCURA*. Pale cream-color, marked with small round spots of reddish-brown; these are more numerous towards the greater end; six to ten; 1.95 by 1.45. Nests on the ground. Rocky Mt. region of U. S.

471*b*. Richardson's Grouse—*CANACE OBSCURA RICHARDSONI*. Cream-color, marked with small dots of reddish brown, similar to those of the Dusky Grouse; six to ten; 1.75 by 1.35. Rocky Mts. of British America.

472. Canada Grouse; Spruce Partridge—*CANACE CANADENSIS*. Fawn-color, irregularly splashed with different tints of brown; eight to fourteen; 1.72 by 1.21. Nests on the ground. British America—Northern U. S.

473. Ruffed Grouse—*BONASA UMBELLUS*. Dark cream color, sometimes faintly blotched with a darker shade of the same; seven to twelve; 1.60 by 1.15. Nests on the ground. E. N. A.

473*b*. Oregon Ruffed Grouse—*BONASA UMBELLUS SABINEL*. Dark cream-color, unspotted; six to fourteen. Nests on the ground. (See Notes.) Rocky Mts. to Pacific Coast of Oregon.

474. Willow Ptarmigan—*LAGOPUS ALBUS*. Cream-color, tinged with reddish shading, marked with large, confluent blotches of dark chestnut; ten to sixteen; 1.85 by 1.20. Nests on the ground. Arctic America.

475. Rock Ptarmigan—*LAGOPUS RUPESTRIS*. Deep reddish-cream color, nearly covered by blotches of reddish chestnut; four to eight; 1.63 by 1.18. Nests placed on the ground. Arctic A.

477. Prairie Hen—*CUPIDONIA CUPIDO*. Light-clay or dark tawny. brown; sometimes, not always, sprinkled with brown; eight to twelve; 1.75 by 1.25. Nests on the ground. Prairie country of U. S.

478*a*. Common Sharp-tailed Grouse—*PEDICETES PHASIANELLUS COLUMBIANUS*. Light clay to a dark rusty-brown, generally not marked, but frequently speckled with fine dottings of darker brown; ten to fifteen; 1.80 by 1.30. Nests on the ground. Plains and Prairies of U. S.

479. Sage Cock—*CENTROCERCUS UROPHASIANUS*. Light greenish-drab to a drab shaded with buff, thickly freckled with small rounded spots of reddish-brown and dark chestnut; ten to fifteen; 2.20 by 1.50. Nests on the ground. (See Notes.)

480. Bob-white; American Quail—*ORTYX VIRGINIANA*. Pure white; fifteen to twenty-five, usually about eighteen; pyriform; 1.18 by .98. Nests on the ground. E. U. S.
- 480a. Florida Quail—*ORTYX VIRGINIANA FLORIDANA*. Same as those of the preceding species. Nesting habits the same. Fla.
- 480b. Texan Quail—*ORTYX VIRGINIANA TEXANA*. Same as those of *Virginiana*, but slightly smaller. Southern Texas and Valley of the Rio Grande.
481. Mountain Quail—*OREORTYX PICTA*. Cream color with a reddish tint; six to twelve; 1.47 by 1.12. Nests on the ground. Washington Territory, Oregon—Coast region of Cal.
482. Californian Quail—*LOPHORTYX CALIFORNICA*. Creamy-white, marked with scattered spots of chestnut-brown, golden-red and sometimes light-drab; four to sixteen; 1.21 by .91. Nests on the ground. Pacific Province U. S.
483. Gambel's Quail—*LOPHORTYX GAMBELI*. Creamy-white, marked with spots of chestnut-red; twelve to seventeen. 1.25 by 1. Nests on the ground. Colorado Valley of U. S.
484. Scaled Quail—*CALLIPEPLA SQUAMATA*. Creamy-white, speckled with dots of grayish or drab, sometimes reddish; six to twelve; 1.38 by .98. Table-lands of Mexico and Valley of Rio Grande of Texas.
486. Great White Heron; Wurdemann's Heron—*ARDEA OCCIDENTALIS*. Light bluish green, somewhat elliptical, unspotted; two to three; 1.82 by 2.40, *v.* Nests in trees. The nests, like all those of the heron family, are loosely arranged with sticks. Fla.
487. Great Blue Heron—*ARDEA HERODIAS*. Greenish-blue, unspotted, varying from elliptical to oval in form; 2.70 by 1.68, *v.* The nests of this species are placed in high trees or bushes, usually sycamores, along rivers or in retired swamps. In localities destitute of trees the nest is placed on rocks. N. A.
489. American Egret—*HERODIAS ALBA EGRETTA*. Bluish-green, unspotted, varying from elliptical to oval; two to four; 2.25 by 1.50, *v.* Nests in trees and bushes. S. U. S.
490. Snowy Heron—*GARZETTA CANDIDISSIMA*. Pale greenish-blue, unspotted, varying from elliptical to oval in form; two to four; 1.82 by 1.22, *v.* Nests in trees and bushes. S. U. S.
491. Reddish Egret; Peale's Egret—*DICHROMANASSA RUF A*. Light bluish-green, unspotted, somewhat elliptical in form; two to four; 2. by 1.50, *v.* Nests in trees. S. Fla.

492. Louisiana Heron—*HYDRANASSA TRICOLOR LUDOVICIANA*. Bluish-green, unspotted, varying from elliptical to oval in form; two to four; 1.75 by 1.35, *v.* Nests in trees or bushes. South Atlantic and Gulf States.

493. Little Blue Heron—*FLORIDA CÆRULEA*. Dark bluish-green, unspotted; two to four; 1.75 by 1.35, *v.* Nests in trees or bushes. Coast of South Atlantic, and Gulf Coast to Mexico.

494. Green Heron—*BUTORIDES VIRESCENS*. Light greenish-blue, unspotted, elliptical; three to five—four being the usual number; 1.55 by 1.35. The nest of this Heron is placed in trees or bushes on the border of a stream or near a swamp, sometimes in an orchard at a distance from water. U. S.

495. Black-crowned Night Heron—*NYCTIARDEA GRISEA NÆVIA*. Pale bluish-green, unspotted, varying from elliptical to oval; three to five; 1.95 by 1.40, *v.* Nests in trees. (See Notes.) U. S.

496. White-crowned Night Heron—*NYCTHERODIUS VIOLACEUS*. Yellowish-green, unspotted, varying from elliptical to oval; two to four; 1.92 by 1.45. Nests in trees or bushes. South Atlantic and Gulf States.

497. American Bittern—*BOTAURUS LENTIGINOSUS*. Varying from greenish-ash to brown or brownish-drab, unspotted, elliptical; three to six; 2.10 by 1.68, *v.* Nests placed in marshy places on the ground. Temperate N. A.

498. Least Bittern—*ARDETTA EXILIS*. Pale blue, unspotted, elliptical; three or four; 1.25 by .98, *v.* Nests placed in tops of bushes or grass. U. S.

500. Wood Ibis—*TANTALUS LOCULATOR*. Chalky-white, sometimes spotted with pale reddish-brown, somewhat elliptical; one or two; 2.72 by 1.72, *v.* Nests placed in high trees. South Atlantic and Gulf States.

501. White Ibis—*EUDOCIMUS ALBUS*. Ashy-blue, spotted and blotched irregularly with reddish and umber brown of varying shades; two or three; 2.20 by 1.50, *v.* Nests placed in trees or bushes. South Atlantic and Gulf States.

502. Scarlet Ibis—*EUDOCIMUS RUBER*. Bluish, covered with white calcareous deposit, oval; two; 3.25 by 2., *v.* Nests placed on the ground in marshy places. South America and West Indies, rare or accidental in U. S.

503. Glossy Ibis—*PLEGADIS FALCINELLUS*. Deep greenish blue, unspotted; two or three; 2.10 by 1.40. Nests placed in trees or low bushes. U. S.

505. Roseate Spoonbill—*AJAJA ROSEA*. Ashy white, spotted and blotched rather sparsely with a reddish-brown, oval; two or three, 2.50 by 1.75, *v.* Nests placed in trees. South Atlantic and Gulf States.

507. American Oystercatcher — *HÆMATOPUS PALLIATUS*. Creamy or white, spotted and blotched irregularly with varying shades of brown, rather oval; two to four; 2.15 by 1.50, *v.* Eggs laid in a hollow on the ground.

Atlantic Coast—Fla.

509. Turnstone — *STREPSILAS INTERPRES*. Greenish-ash, spotted, blotched and dotted irregularly and thickly with yellowish and umber-brown; pyriform; two to four; 1.60 by 1.18, *v.* Eggs placed on the ground in a depression of the soil.

Sea coasts of nearly all countries.

513. Black-bellied Plover — *SQUATAROLA HELVETICA*. Brownish-drab or clay color, thickly marked with spots and blotches of brownish-black, often confluent and sometimes very irregular at the greater end, pyriform; four; 2. by 1.40, *v.* Eggs placed in a depression of the soil.

N. A.

515. American Golden Plover — *CHARADRIUS DOMINICUS*. Deep chocolate-brown, spotted and blotched irregularly with confluent markings of varying shades of brown; two to four. Nest composed of a few leaves within a natural cavity of the ground. This bird breeds in the arctic regions.

N. A.

516. Killdeer — *OXYECHUS VOCIFERUS*. Drab or clay-color, thickly spotted and blotched with blackish-brown and umber, small end quite pointed, as is usually the case with all eggs of birds of this order; four; 1.50 by 1.12, *v.* Eggs placed in a depression of the ground.

N. A.

517. Semipalmated Plover — *ÆGIALITES SEMIPALMATUS*. Varying from greenish to yellowish-ash, spotted, blotched and dotted with varying shades of brown, pyriform; two to four; 1.25 by .93, *v.* Nests in a natural cavity of the ground.

N. A.

520. Piping Plover — *ÆGIALITES MELODUS*. Clay or creamy-brown, marked nearly uniformly all over, but sparsely, with small, blackish-brown dots and specks, but no spots or irregular lines. The dottings are sometimes extremely fine, mere points, mingled with a few obscure shell-markings of lilac and lavender; four or five; 1.20 by 1., *v.* Nests in a depression of the ground.

U. S.

522. Wilson's Plover — *OCHTHODROMUS WILSONIUS*. Creamy, finely and thickly spotted with black, dark and umber-brown—some of the spots are very obscure, as it were on the inside of the shell, pyriform; four; 1.76 by 1.28. I fail to see lines or scrolls of any kind on the surface of this egg as some authors have said. Nests in a slight depression of the ground. (See Notes.)

E. N. A.

523. Mountain Plover—*PODASOCYS MONTANUS*. Greenish-brown, finely and thickly dotted with very dark brown and black, pyriform; two to four; 1.40 by 1.10, *v.* Nests in a depression of the ground. E. N. A.
525. American Woodcock—*PHILOHELA MINOR*. Creamy or buff, irregularly and thickly spotted with pale, reddish-brown of varying shades; four; 1.65 by 1.10, *v.* Nests in a depression of the ground. E. N. A.
- 526a. Wilson's Snipe—*GALLINAGO MEDIA WILSONI*. Varying from a grayish-olive to greenish-brown and yellowish-ash, spotted and blotched with reddish-brown, umber, and sometimes with lines of black; three or four; 1.55 by 1.10. Nests on the ground. N. A.
527. Red-breasted Snipe; Gray Snipe—*MACRORHAMPHUS GRISEUS*. The eggs of this species cannot, with certainty, be distinguished from those of Wilson's Snipe; four; 1.62 by 1.12. Nests on the ground. N. A.
529. Knot; Robin Snipe—*TRINGA CANUTUS*. Varying from greenish to yellowish-ash, dotted irregularly, with different shades of umber and reddish-brown, pyriform; four; 1.32 by .98. Nests in a hollow of the ground. Northern Hemisphere.
530. Purple Sandpiper—*ARQUATELLA MARITIMA*. Clay color, shaded with olivaceous, with large and distinct markings of rich umber-brown of different depths of intensity all over the shell, but most numerous as well as largest on the greater half, pyriform; three or four; 1.40 by 1. Nests in a hollow of the ground. N. A.
537. Baird's Sandpiper—*ACTODROMAS BAIRDII*. Buff or clay-colored, spotted and blotched with varying shades of chestnut-brown; four; 1.30 by .90, *v.* Nests in a hollow of the ground. N. A.
538. Least Sandpiper—*ACTODROMAS MINUTILLA*. Creamy or buff color, spotted and blotched irregularly and thickly with different shades of brown; three or four; .95 by .75. Nests in a depression of the ground. N. A.
541. Semipalmated Sandpiper—*EREUNETES PUSILLUS*. Variable shade of drab, dotted and blotched with brown of varying shades, pyriform; four; 1.22 by .83. Nests in a depression of the ground. N. A.
542. Sanderling—*CALIDRIS ARENARIA*. Ashy or greenish-brown, spotted and blotched with brown of different shades, pyriform; four; 1.35 by .72. Nests in a depression of the ground. Temperate regions of N. A.
543. Marbled Godwit—*LIMOSA FÆDA*. Creamy or buff, spotted and blotched, rather sparsely, with yellowish-brown of varying shades, long oval; four; 2.25 by 1.45, *v.* Nests in a hollow of the ground. N. A.

545. Hudsonian Godwit—*LIMOSA HÆMASTICA*. Heavily shaded olive-drab, almost as dark as in a Loon's egg, obscurely spotted and blotched with dark-brown; three or four; 2.15 by 1.38. Nests in a depression of the ground. N. E. N. A.

548. Greater Yellow-legs; Tell-tale—*TOTANUS MELANOLEUCUS*. Grayish-white, marked with spots of dark brown, varying in intensity of shade, together with obscure shell markings of lilac. The markings are over the entire surface, but more numerous at the larger end; four; 1.75 by 1.25. Nests in a hollow of the ground. Western Hemisphere.

549. Yellow-legs—*TOTANUS FLAVIPES*. Varying from a clay to buffy or creamy color, sometimes light-brown, the markings are bold and heavy, with great diversity of heavily splashed blotches of chocolate, umber-brown and blackish, these being chiefly at the larger end and sometimes confluent. Paler shell markings are also numerous and noticeable; four; 1.65 by 1.20. Nests in a hollow of the ground. Western Hemisphere.

550. Solitary Sandpiper — *RHYACOPHILUS SOLITARIUS*. Light drab, marked with spots of brown, some quite dark, nowhere confluent; two to four; 1.40 by 1.10. Nests in a hollow of the ground. Western Hemisphere.

552. Willet—*SYMPHEMIA SEMIPALMATA*. Varying from a brownish olive to a greenish or grayish-white, marked with bold spots of various shades of umber-brown, with obscure shell-markings. They are less pointedly pyriform than the eggs of the smaller Tattlers and Sandpipers; four; 2. by 1.45. Nests in a depression of the ground. Temperate N. A.

555. Bartram's Sandpiper; Field Plover—*BARTRAMIA LONGICAUDA*. Pale clay or buff, thickly spotted with umber and yellowish-brown; four; 1.75 by 1.28. Nests in a depression of the ground. N. A.

556. Buff-breasted Sandpiper—*TRYNGITES RUFESCENS*. Clay color of various shades, sharply spotted and blotched with rich umber-brown, pointedly pyriform; four; 1.45 by 1.05, *et*. Nests on the ground in a slight depression. N. A.

557. Spotted Sandpiper—*TRINGOIDES MACULARIUS*. Of a creamy, buff or clay color, blotched, spotted and dotted with blackish-brown; four; 1.34 by .92. The nest of this Sandpiper is built on the ground, usually in the shelter of high weeds or grass on a sandy island or border of a cultivated meadow, near water. N. A.

558. Long-billed Curlew—*NUMENIUS LONGIROSTRIS*. Clay or buff in color, marked with umber of different shades, in the buffy-tinged specimens

rather tending to chocolate, not so pyriform as those of the smaller waders; four; 2.45 by 1.85, *v.* Nests on the ground in a slight depression. U. S.

559. Hudsonian Curlew—*NUMENIUS HUDSONICUS*. Ashy-yellow, the markings are large and bold, of different shades of chocolate and umber-brown. The eggs of this species can only be distinguished from the following species by their larger size; four; 2.28 by 1.60, *v.* Nests in a depression of the ground. N. A.

560. Eskimo Curlew—*NUMENIUS BOREALIS*. Varying from yellowish-ash to greenish-brown, spotted and blotched with bold markings of umber and brown of varying shades; 1.95 by 1.30, *v.* Nests in a depression of the ground. North and Middle America.

563. Red Phalarope—*PHALAROPUS FULICARIUS*. Greenish or yellowish-ash, blotched and spotted with brown of various shades. The eggs of this species cannot, with certainty, be distinguished from those of the following species; four; 1.15 by .85, *v.* Nests on the ground in a slight depression. Northern Hemisphere

564. Northern Phalarope—*LOBIPES HYPERBOREUS*. Greenish or yellowish-ash, thickly blotched with varying shades of brown; two to four; 1.08 by .82, *v.* Nests on the ground in a slight depression. Northern Hemisphere.

565. Wilson's Phalarope—*STEGANOPUS WILSONI*. Ashy-yellow, usually coarsely spotted and blotched with brown of varying shades; two to four; 1.20 by .90, *v.* Nests on the ground in a depression. N. A.

566. American Avocet—*RECURVIROSTRA AMERICANA*. Varying from a dark olive to buff, uniformly spotted with chocolate-brown of various shades, pyriform; three or four; 2. by 1.35, *v.* Nests on the ground in a slight depression. U. S.

567. Black-necked Stilt—*HIMANTOPUS MEXICANUS*. Brownish-olive, spotted, blotched and lined quite thickly and irregularly with brownish black of varying shades, pyriform; three or four. The eggs appear large for the size of the bird; 1.58 by 1.20. Nests on the ground in a slight depression. U. S.

569. Red-breasted Rail—*RALLUS ELEGANS*. Varying from a dull white to cream or pale buff, sparsely dotted and spotted with reddish-brown and lilac, oval; six to ten; 1.66 by 1.10. Nests on the ground in marshy places. U. S.

571. Clapper Rail—*RALLUS LONGIROSTRIS CREPITANS*. Pale buffy-yellow, dotted and spotted with reddish-brown and lilac, oval; eight; 1.65 by 1.05. Nests on the ground in marshy places. Middle and Southern Coast, U. S.

572. Virginian Rail—*RALLUS VIRGINIANUS*. Cream or buff, sparsely spotted with reddish-brown and obscure lilac; eight; 1.25 by .95, *v*. Nests on the ground in marshy places. U. S.

574. Sora Rail—*FORZANA CAROLINA*. Grayish or drab, spotted with reddish-brown, oval; six to ten; 1.20 by .90. Like all the others of this family the nest is placed on the ground in marshy places. Temperate N. A.

575. Little Yellow Rail—*FORZANA NOVEBORACENSIS*. Rich buffy-brown, marked at the larger end with a cluster of reddish-brown dots, oval; 1.15 by .85. Nests on the ground in marshy places. E. N. A.

576. Little Black Rail—*FORZANA JAMAICENSIS*. Creamy-white, sprinkled all over with fine dots of rich, bright reddish-brown, oval; six to eight; 1.05 by .80. Nests on the ground in marshy places.

Middle and Southern States on the Atlantic.

578. Purple Gallinule—*IONORNIS MARTINICA*. Creamy, finely and rather sparsely dotted with chestnut-brown and umber, rather elliptical; six; 1.70 by 1.15, *v*. Nests in marshy places on the ground in tall grasses and weeds. South Atlantic and Gulf States.

579. Florida Gallinule—*GALLINULA GALEATA*. Creamy or brownish-buff, rather thickly spotted with brown and umber, oval; eight to ten; 1.78 by 1.25, *v*. Nests on the ground in marshy places among the tall grasses. (See Notes.) U. S., Southerly.

580. American Coot—*FULICA AMERICANA*. Clay or creamy-white, uniformly and finely dotted all over with specks of dark-brown and blackish, oval; six to twelve; 2. by 1.25. The nest of the Coot is placed on floating vegetation or on the ground in marshy places. Entire temperate N. A.

581. The Limpkin—*ARAMUS PICTUS*. Ashy-yellow, lined, sprinkled, spotted and blotched with reddish-brown and umber, rather elliptical; ten to fifteen; 2.35 by 1.78. The nest of this bird is placed on bushes which overhang water. Florida and West Indies.

582. Whooping Crane—*GRUS AMERICANA*. Light brownish-drab, sparsely marked, except at the greater end, with large irregular spots of a pale dull chocolate-brown and obscure shell-markings, elliptical; the shell is very rough, is covered with numerous elevations like little warts; two; 3.90 by 2.62, *v*. Nests on the ground in marshy places. Temperate N. A.

583. Sandhill Crane—*GRUS CANADENSIS*. Ashy-yellow, spotted and blotched with reddish-brown, of the same general character as those of the preceding species, rather elliptical; 3.42 by 2.15, *v*. This bird constructs its nest in shallow water by heaping up a mass of mud, roots, grass,

weeds, etc., forming a conical pile which is elevated about six inches above the water. Western U. S., Fla.

585. American Flamingo—*PHŒNICOPTERUS RUBER*. White externally, but of a bluish tinge when the surface is scraped off. The shell is thick and rather rough; the general form is elongated; two; 3.37 by 2.15, *v*. The nest is a mass of earth, sticks and other material scooped up from the immediate vicinity, to the height of two or three feet, and is hollow at the top. On this the birds sit, bestriding it in a very ungainly attitude.

West Indies and shores of Gulf of Mexico, occurring only in southern portions of U. S.

588. Whistling Swan—*OLOR AMERICANUS*.—Dirty-white, oval; six to ten; 4. by 2.50, *v*. Nests placed on the ground in marshy places. Breeds only in the far North. N. A.

589. Trumpeter Swan—*OLOR BUCCINATOR*. Dirty-white, oval; six to ten; 4.05 by 2.50. Nests placed on the ground in marshy places. Breeds from Iowa and Dakota northward (chiefly Mississippi Valley).

591. Snow Goose—*CHEN HYPERBOREUS*. Yellowish-white, elliptical; five to eight; 2.85 by 1.95. Nests placed on the ground in marshy places. Breeds in high latitude. N. A.

593a. American White-fronted Goose—*ANSER ALBIFRONS GAMBELI*. Dull greenish-yellow, with obscure darker tints, elliptical; six to ten; 3. by 2., *v*. Nests placed on the ground in marshy places. Breeds in the far North. N. A.

594. Canada Goose—*BERNICLA CANADENSIS*. Dirty-white, elliptical; six to ten; 3.45 by 2.28. Nests placed on the ground in marshy places. Breeds in the United States and further north. N. A.

595. Brant—*BERNICLA BRENTA*. Dirty-white, elliptical; six to ten; 2.75 by 1.85, *v*. Nests placed on the ground in marshy places.

Europe and N. A.

601. Mallard—*ANAS BOSCAS*. Greenish-brown, elliptical; six to ten; 2.35 by 1.75, *v*. The nest of the Mallard is placed on the ground in a clump of weeds or grass near water. N. A.

602. Black Mallard—*ANAS OBSCURA*. Greenish-brown, elliptical; six to ten; 2.35 by 1.75. Nesting habits same as those of preceding species.

Atlantic Coast of N. A.

604. Gadwall—*CHAULELASMUS STREPERUS*. Clay or creamy-buff, elliptical; six to ten; 2. by 1.45, *v*. Nests placed on the ground in tall weeds or grass near water. N. A.

605. Pintail—*DAFILA ACUTA*. Dull grayish-olive, without any buff or creamy shade, elongate ellipsoid; six to twelve; 2.25 by 1.50, *v*. Nests placed on the ground in marshy places. N. A.

607. Baldpate—*MARECA AMERICANA*. Pale buff; eight to twelve; 2. by 1.50, *v*. The nest of the American Widgeon is built on the ground in tall grass or weeds, near water. N. A.

608. Shoveller—*SPATULA CLYPEATA*. Greenish-gray, elliptical; six to ten; 2.10 by 1.50, *v*. Nests built on the ground in marshy places. N. A.

609. Blue-winged Teal—*QUERQUEDULA DISCORS*. Greenish or buff, elliptical; six to ten. Nests built on the ground, among rushes, near water. N. A.

610. Cinnamon Teal—*QUERQUEDULA CYANOPTERA*. Creamy-white or pale buff; six to twelve; 1.75 by 1.30, *v*. Nests placed on the ground in marshy places. W. N. A.

612. Green-winged Teal—*NETTION CAROLINENSIS*. Greenish or buff, elliptical; six to ten; 1.90 by 1.30, *v*. Nests built on the ground among tall grass or weeds, near water. N. A.

613. Wood Duck; Summer Duck—*AIX SPONSA*. Pale brown or greenish-buff, elliptical; six to ten; 2. by 1.50. This duck nests in holes of trees and the nest is composed of grass, weeds, feathers, etc. Breeds in suitable places throughout United States. N. A.

614. Scaup Duck—*FULIX MARILA*. Ashy-green, elliptical; six to ten; 2.35 by 1.70, *v*. Nests built on the ground in marshy places. N. A.

615. Little Blackhead—*FULIX AFFINIS*. Ashy-green, elliptical; six to ten; 2.25 by 1.60, *v*. Nests placed on the ground in marshy places. N. A.

616. Ring-billed Blackhead—*FULIX COLLARIS*. Ashy-green, elliptical; six to ten; 2.30 by 1.62, *v*. Nests built on the ground near water. Breeds in the far North. N. A.

617. Canvas-back—*ÆTHYIA VALLISNERIA*. Greenish-buff, elliptical; six to ten; 2.50 by 1.70, *v*. Nests placed on the ground near water. N. A.

618. Redhead—*ÆTHYIA AMERICANA*. Creamy-white, elliptical; six to ten; 2.20 by 1.65, *v*. Nests on the ground in tall grass and weeds. N. A.

619. Barrow's Golden-eye—*CLANGULA ISLANDICA*. Ashy-green, elliptical; six to ten; 2.40 by 1.70, *v*. The nest of this duck is placed in holes of trees. N. A.

620. American Golden-eye—*CLANGULA GLAUCIUM AMERICANA*. Ashy-green, spherical; six to ten; 2.35 by 1.75, *v*. The nest, like that of the preceding species, is placed in the holes of trees. N. A.

621. Butterball; Bufflehead—*CLANGULA ALBEOLA*. Varying from buff to a creamy-white or grayish olive, elliptical; six to twelve; 1.75 by 1.25, *v*. Nests in the hollow of a dead tree. N. A.

622. Harlequin Duck—*HISTRIONICUS MINUTUS*. Greenish-yellow, elliptical; six to ten; 2. by 1.30, *v*. Nests on the ground near water.

Northern Seacoast of Northern Hemisphere.

623. Long-tailed Duck; Old Squaw—*HARELDA GLACIALIS*. Greenish-ash, elliptical; six to ten; 2.10 by 1.50, *v*. Nests on the ground in marshy places. Northern Hemisphere.

627. Common Eider—*SOMATERIA MOLLISSIMA*. Ashy-green, elliptical; six to ten; 2.85 by 1.98, *v*. Nests on the ground near water. N. N. A.

629. King Eider—*SOMATERIA SPECTABILIS*. Dirty-green, elliptical; six to ten; 2.60 by 1.75, *v*. Nests on the ground near water.

Arctic regions of Northern Hemisphere.

630. American Scoter—*CEDEMIA AMERICANA*. Pale yellow, oval; six to ten; 2. by 1.60, *v*. Nests on the ground near water. N. A.

632. American Velvet Scoter—*MELANETTA VELVETINA*. Dirty-cream color, oval; six to ten; 2.60 by 1.80, *v*. Nests on the ground near water.

Europe and America.

633. Surf Duck—*PELIONETTA PERSPICILLATA*. Greenish-buff, elliptical; six to twelve; 2.25 by 1.60, *v*. Nests on the ground near the water.

Sea coast of N. A.

636. American Sheldrake—*MERGUS MERGANSER AMERICANUS*. Pale buff, oval; six to ten; 2.80 by 1.75, *v*. Nests in holes of trees. N. A.

637. Red-breasted Sheldrake—*MERGUS SERRATOR*. Greenish-brown, oval; six to twelve; 2.50 by 1.72, *v*. Nests on the ground in tall grass and weeds near water. Northern Hemisphere.

638. Hooded Sheldrake—*LOPHODYTES CUCULLATUS*. White, spherical; six to ten; 2.10 by 1.70, *v*. Nests placed in the holes of trees. N. A.

639. Frigate Pelican—*TACHYPETES AQUILA*. Bluish or greenish-white,

covered with a white calcareous deposit, rather elliptical; one or two; 2.82 by 2. Nests in trees or on the ground.

South Atlantic and Gulf coasts of U. S., and southern coast of Cal.

640. American White Pelican—*PELECANUS ERYTHORHYNCHUS*. White, covered with a calcareous deposit, oval; one or two; 3.15 by 2.20, *v*. Nests on the ground near the water. The nest is simply a low mound of dirt scraped together by the bird.

N. A.

641. Brown Pelican—*PELECANUS FUSCUS*. White, covered with a white calcareous deposit, oval; two; 2.80 by 1.80, *v*. Nest is a bulky structure placed in trees or on the ground. The birds congregate in thousands and select particular localities for breeding grounds, and will return year after year to the same place. They breed abundantly on Indian River, Florida.

South Atlantic and Gulf coasts of U. S.

642. Common Cormorant—*PHALACROCORAX CARBO*. Bluish-green, oval; three to four; 2.60 by 1.65, *v*. Nests on rocky cliffs.

Atlantic Coast of N. A.

643. Double-crested Cormorant—*PHALACROCORAX DILOPHUS*. Greenish-blue, oval; three to four; 2.25 by 1.35, *v*. Nests on rocky cliffs.

N. A.

643a. Florida Cormorant—*PHALACROCORAX DILOPHUS FLORIDANUS*. Greenish-blue, oval; two to four; 2.40 by 1.40, *v*. Nests on rocky cliffs and in dead trees.

South Atlantic and Gulf States.

649. American Anhinga; Snake Bird—*PLOTUS ANHINGA*. Bluish or dark greenish-white, oval; three to five; 2.15 by 1.12, *v*. Nest placed in trees.

Fresh waters of South Atlantic and Gulf States.

650. Gannet—*SULA BASSANA*. Greenish-blue, covered with a calcareous deposit, oval; 3. by 1.80, *v*. Nests on rocky cliffs.

Atlantic coast of N. A.

652. Booby Gannet—*SULA LEUCOGASTRA*. Greenish-blue, oval; one or two; 2.25 by 1.55, *v*. Eggs usually placed on the naked ground or rock.

South Atlantic and Gulf States of U. S.

654. Yellow-billed Tropic Bird—*PHAETHON FLAVIROSTRIS*. Chalky-white, usually very thickly spotted with reddish-chocolate of varying shades, oval; one; 2.15 by 1.55, *v*. Nest placed in holes of rocks.

Tropical regions of the Atlantic seas.

656. Black Skimmer—*RHYNCHOPS NIGRA*. Yellowish-white, spotted and blotched rather coarsely with brown, umber, and lilac of varying shades, oval; two or three; 1.65 by 1.35, *v*. Eggs placed on the ground in sandy places.

From Texas to New Jersey.

658. Kittiwake Gull—*RISSA TRIDACTYLA*. Yellowish-buff, spotted and blotched with rounded marks of brown and lilac of varying shades, oval; two or three; 2.25 by 1.65, *v*. Nests on rocky cliffs. Arctic regions.

660. Glaucous Gull; Burgomaster—*LARUS GLAUCUS*. Varying from bluish-white to dark brownish-yellow, spotted, blotched and sprinkled with brown and lilac of varying shades, oval; three or four; 2.95 by 2.25, *v*. Nests on rocky cliffs. Arctic seas, Labrador.

663. Great Black-backed Gull—*LARUS MARINUS*. Varying from a bluish-white to deep yellowish-brown, spotted and blotched with reddish-brown and lilac of various shades, oval; three or four; 2.95 by 2.25. Nests on rocky cliffs. North Atlantic, Labrador.

666. Herring Gull—*LARUS ARGENTATUS*. Varying from bluish-white to deep yellowish-brown, spotted and blotched with brown and lilac of varying shades, oval; three or four; 2.75 by 1.85, *v*. Nests on the ground, on rocky cliffs, and sometimes in trees. N. A.

666*a*. American Herring Gull—*LARUS ARGENTATUS SMITHSONIANUS*. Bluish, greenish or brownish-olive, spotted and blotched with brown, slate and lilac, very variable in shape, size and distribution; three; 2.80 by 1.90, *v*. Nests on the ground. The nest is large and bulky. N. A.

669. Ring-billed Gull—*LARUS DELAWARENSIS*. Varying from bluish-white to dark-brown, spotted and blotched with brown and lilac of various shades, oval; three to four; 2.78 by 1.65, *v*. Nests on the ground or on cliffs. N. A.

673. Laughing Gull—*LARUS ATRICILLA*. Varying from bluish-white to greenish ash, spotted and blotched with brown, umber and lilac of varying shades, oval; three or four; 2.10 by 1.62, *v*. Nests on the ground in sandy places. Texas to Mass.

675. Bonaparte's Gull—*LARUS PHILADELPHIÆ*. Varying from greenish to brown, spotted and blotched with brown, umber, and lilac of various shades, oval; three or four; 1.40 by 1.15, *v*. Nests on the ground or rocky cliffs. N. A.

677. Sabine's Gull—*NEMA SABINEI*. Deep greenish-brown, obscurely spotted and blotched with darker shades of the same, oval; two; 1.45 by 1.05, *v*. Eggs placed on the ground in sandy places. Nova Scotia, northward.

679. Gull-billed Tern—*STERNA ANGLICA*. Varying from yellowish-buff to greenish, spotted and blotched with yellowish-brown and lilac, oval; three or four; 1.78 by 1.32, *v*. Eggs laid on the ground in sandy places. E. U. S.

680. Caspian Tern—*STERNA CASPIA*. Varying from white to greenish-buff, spotted and blotched with brown and lilac of different shades, oval; three or four; 2.70 by 1.85, *v*. Eggs laid on the ground in sandy places.

Coast of N. J.

681. Royal Tern—*STERNA REGIA*. Varying from white to greenish-buff, spotted and blotched with brown, umber, and lilac of varying shades, with an occasional tinge of yellow, rather pyriform; two to three; 2.72 by 1.72, *v*. Eggs laid on the ground in sandy places.

Atlantic coast of the Southern and Middle States.

683. Cabot's Tern—*STERNA CANTIACA ACUFLAVIDA*. Varying from white to buff, spotted and blotched with brown, umber, bluish and reddish, oval; 2.05 by 1.28, *v*. Eggs laid on the ground in sandy places.

Texas to Fla.

685. Forster's Tern—*STERNA FORSTERI*. Varying from nearly pure white and pale green to warm brownish-drab, spotted and blotched with brown, umber and lilac, oval; three to four; 1.70 by 1.25, *v*. Eggs laid on the ground in marshy places.

N. A.

686. Common Tern—*STERNA FLUVIATILIS*. Varying from greenish to deep brown, spotted and blotched with brown, blackish and lilac, oval; three to four; 1.50 by 1.10, *v*. Nests placed on the ground in sandy places. (See Notes.)

Europe, E. N. A.

687. Arctic Tern—*STERNA MACRURA*. From nearly pure white to deep brown, spotted and blotched with chocolate-brown, umber, and lilac of varying shades, oval; 1.50 by 1.10, *v*. Eggs laid on the ground in sandy places.

Coast of New England States to the Arctic Seas.

688. Roseate Tern—*STERNA DOUGALLI*. Varying from greenish to deep brown, spotted and blotched with brown, umber and lilac, oval; 1.45 by 1.10, *v*. Nests on the ground in sandy places. (See Notes.)

Fla. to New York.

690. Least Tern—*STERNA ANTILLARUM*. Buff, spotted and blotched irregularly with brown, umber, and lilac of various shades, with an occasional tinge of yellowish, oval; three or four; 1. by .78, *v*. Nests on the ground in sandy places.

Temperate N. A.

691. Sooty Tern—*STERNA FULIGINOSA*. Pinkish-white, spotted and blotched with a rich reddish-brown, tinged with lilac, oval; two or three; 1.95 by 1.50, *v*. Eggs placed on the ground in sandy places.

Texas to Fla.

693. Black Tern—*HYDROCHELIDON LARIFORMIS SURINAMENSIS*. Varying from brown to greenish, spotted and blotched with brown and lilac,

pyriform; three; 1.30 by .95, *v.* Eggs placed on the ground on islands of decaying vegetation. Breeds at large in North America. N. A.

695. Noddy Tern—*ANOUS STOLIDUS*. Ashy-yellow, spotted and blotched with pale chocolate-brown and lilac, oval; two or three; 1.85 by 1.45, *v.* Nest placed in trees. Texas to Fla.

698. Richardson's Jaeger—*STERCORARIUS CREPIDATUS*. Deep yellowish or greenish-brown, spotted and blotched with brown and umber of varying shades, oval; two or three; 2.12 by 1.55, *v.* Eggs placed on the ground. Coast of U. S. from New York northwest.

699. Long-tailed Jaeger—*STERCORARIUS PARASITICUS*. Deep yellowish-brown, spotted, blotched and lined with reddish-brown and umber of varying shades, pointed oval; two or three; 2.15 by 1.50, *v.* Eggs placed on the ground. Arctic seacoast of America.

705. Fulmar Petrel—*FULMARIUS GLACIALIS*. Pure white, shell very brittle, elliptical; one; 2.75 by 2., *v.* Eggs placed in holes of rocky cliffs. Northern Atlantic.

712. Dusky Shearwater—*PUFFINUS AUDUBONI*. Pure white, elliptical, one; 1.85 by 1.25, *v.* Eggs placed in holes of cliffs. Southern Coast of U. S.

721. Stormy Petrel; Mother Carey's Chicken—*PROCELLARIA PELAGICA*. White, obscurely dotted with reddish-brown on the larger end, elliptical; one; 1.10 by .75, *v.* Eggs placed in holes of cliffs. Atlantic Ocean, Banks of Newfoundland.

722. Wilson's Petrel—*OCEANITES OCEANICA*. Chalky-white, occasionally spotted with purplish, sometimes in a ring around the larger end, elliptical; one; 1.10 by .80. Nests in burrows. Atlantic Coast.

723. Leach's Petrel—*CYMOCHOREA LEUCORRHOEA*. Chalky-white, dotted finely on the larger end, often in a ring, with purplish-red and lilac, elliptical; one; 1.25 by .90. Nests in burrows. (See Notes.) Atlantic Coast from Mass. to Baffin's Bay.

731. American Red-necked Grebe—*PODICEPS HOLBOLLI*. Greenish or yellowish-white, oval; eight to ten; 2.05 by 1.35, *v.* Nest is placed in a swamp or marsh near water. Fur countries, Atlantic States.

732. Horned Grebe—*DYTES AURITUS*. Uniform yellowish cream color, ovoidal; four to six; 1.85 by 1.20, *v.* Nest is placed near the water's edge of some pond or marsh, sometimes on floating debris. N. A.

733a. American Eared Grebe — *DYTES NIGRICOLLIS CALIFORNICUS*. Faint yellowish-white, usually become stained by the habits of the bird and nature of the nest, texture of shell quite smooth, ovoidal; three; 1.75 by 1.25, *v*. Nest is constructed of a large quantity of grass placed among reeds and tall grasses near water. They breed in colonies. W. N. A.

735. Thick-billed Grebe — *PODILYMBUS PODICEPS*. Yellowish-white, ovoidal; five; 2.17 by 1.45, *v*. Nests placed in marshy places, sometimes on floating vegetation. Atlantic States, Texas and New Mexico, California and Oregon.

736. Loon — *COLYMBUS TORQUATUS*. Olivaceous-brown, sometimes olivaceous-drab, spotted and blotched with very dark brown, almost exactly oval, occasionally very much lengthened; two or three; 3.50 by 2.25, *v*. Nests in the neighborhood of large lakes and ponds, on some low island or in meadows, where the bird collects a large pile of grasses, sods and weeds in which it forms a hollow about sixteen inches in diameter and four or five deep. Northern Hemisphere.

738. Black-throated Diver — *COLYMBUS ARCTICUS*. Dark greenish-brown, spotted and blotched with very dark brown, oval; three; 2.90 by 1.90, *v*. Nesting habits similar to those of the preceding species. Arctic Regions.

740. Red-throated Diver. — *COLYMBUS SEPTENTRIONALIS*. Olivaceous or greenish-brown, blotched and spotted with very dark brown, exactly resembling those of the Loon in form, color and markings, but are smaller; 2.95 by 1.90, *v*. Breeds in Labrador and begins to lay early in June. The nesting habits are similar to those of the other species. Northern Hemisphere.

742. Razor-billed Auk — *UTAMANIA TORDA*. Pure white, greatly spotted and blotched with dark brown or black, the spots generally forming a circle towards the large end, oval; one or two; 3.10 by 2.10, *v*. This bird deposits its eggs on the naked surface in fissures and caverns of rocks. Northeastern Coast of N. A.

743. Common Puffin — *FRATERCULA ARCTICA*. Pure white when laid but soon becomes soiled and stained and appears to be a dirty yellowish-white, some specimens are marked with blotches of brownish red, the proportion of marked ones being about one in five; one; 2.30 by 1.60, *v*. The nest is placed in a burrow in the earth, dug by the birds. In many instances two birds are found sitting each on its egg in the same hole. North Atlantic.

750. Least Auk — *CICERONIA PUSILLA*. Bluish-white, pyriform; one; 1.80 by 1.25, *v*. The eggs are deposited on the shelves of rocky cliffs. N. N. A.

760. Black Guillemot — *URIA GRYLLE*. Varying from a pure pearl-white to a pale greenish-white, marked irregularly with spots and blotches of different shades of brown and black, thickest at the great end where they are usually almost a confluent ring; three; 2.40 by 1.60, *v*. Eggs are placed in holes of cliffs.

Coast of North Pacific.

763. Common Guillemot—*LOMVIA TROILE*. White or greenish-white, spotted with dark-brown and umber, pyriform; one; 3.25 by 1.90, *v*. It is very abundant on the coast of Labrador, where on the low islands it breeds, laying its egg, like the Razor-billed Auk, on the bare rock or gravel.

Northern Coasts of America.



NOTES.

Under this heading I give a number of original notes, also additional and interesting information on the nesting habits of various species. Many of these are from my correspondents and collectors, in different parts of the United States.

4. *Hylocichla ustulata.*

Russet-backed Thrush.

This species is recorded as having a very limited distribution, being mainly restricted to the Pacific coast region. The number of eggs in a set is usually five. A set of four collected by W. O. Emerson, near Haywards, California, is in my collection. They are of a light green, spotted variously with yellowish-brown. They measure as follows: .91 by .69, .89 by .69, .91 by .69, .83 by .66.

These were taken from a nest which was placed in the forks of a willow that overhung a running stream. The nest was composed of dead leaves and drifted straw, matted together with mud.

10. *Oreoscoptes montanus.*

Sage Thrasher.

The following, under the title of "Notes from Colorado," by D. D. Stone, I take from the December number (1882) of the "Ornithologist and Oologist."* It undoubtedly refers to this bird:

"Mountain mocking birds are quite plentiful in open places, but are seldom seen in the timber.

"June 20.—Took two sets of four eggs,—one fresh and the other containing large embryos. The nests are a large, bulky affair, and were placed under a overhanging rock in a deep railroad cut. Composed outwardly of dead twigs loosely laid together and lined with fine dry grass and weeds. Dimensions outside: height 4½ inches, width 9 inches, inside depth 2 inches, breadth 4 inches.

"June 25.—Found a nest under a rock in an old prospect hole far above timber line containing four fresh eggs. The parent bird when on the nest will allow itself to be nearly touched by the hand when it will slip off the nest and out of sight. The eggs average .68 by .95. Ground

* "Ornithologist and Oologist" a monthly magazine devoted to the study of birds, their nests and eggs: Published by Frank B. Webster, Pawtucket, R. I.

color, impure white, with splashes of umber and a few small spots of pale lilac blended together, covering the whole of the larger end, the remaining surface being covered by small and separate markings of the same colors in a little lighter shade "

16. *Harporhynchus redivivus*.

Californian Thrasher.

This bird appears to be confined to the coast of California. It begins nesting early in February. The nest is usually placed three feet from the ground and is always well hid in a clump of bushes. The bird is very tame when nesting. The eggs, three in number, are of a greenish-blue, marked with reddish and light-chocolate spots.

26. *Phainopepla nitens*.

Black-crested Flycatcher.

Prof. B. W. Evermann, who has kindly furnished me with a large number of notes on the nesting habits of the birds of California and whom I will frequently have occasion to refer to here, has made some interesting observations concerning the nesting habits of this bird. As to the number of eggs that this bird lays, he says: "I do not consider *three* eggs to be an *unusual* number, in California at least. Eighty per cent of the sets I found contained *three* eggs. Captain Bendire, I know, never found more than *two* in a set in Arizona. The probabilities are that *two broods* are raised in Arizona while but *one* is raised farther north, and those individuals that nest north try to make up in *large* sets what they lose in *number* of sets. The facts, I believe, will bear out this theory."

A nest of this species, containing three eggs, collected by Prof. Evermann in Ventura County, California, is in my collection. It is rather a flat structure composed of twigs, stems, mosses and vegetable fibres. It is lined with finer vegetable substances. Its size is three and a half inches in width by two deep.

Ten sets of eggs, together with the nests of this species, collected between the 25th of May and June 28, 1883, by R. B. Herron, near San Geronio Pass, Cal., are in my collection. Each of these nests, however, contains two eggs.

61. *Thryonianes Bewicki*.

Bewick's Wren.

On the 17th of May, 1882, Dr. Howard Jones, of Circleville, Ohio, obtained what are believed to be the first nest and eggs of this species ever taken in the State.

The bird is recorded as having a more southern breeding range, but Dr. Jones informs me that since his first "find" he has obtained several sets in the same locality, which certainly is significant that the bird is not an uncommon summer resident, but simply has escaped observation.

Fence-posts, brush heaps, stumps, hollow trees, barns, sheds, and similar places are selected for its nesting place.

In his text of the "Illustrations of the Nests and Eggs of the Birds of Ohio," † Dr. Jones has the following concerning the eggs and nests of this species: "The complement of eggs varies from four to six or seven. They measure in long-diameter from .60 to .68, and in short-diameter from .48 to .54. A common size is .49 by .64. They are spotted and speckled with reddish-brown, sparingly about the point but plentifully toward the crown, where the marks are often confluent forming a wreath. The deep shell-marks are purplish.

The nest and eggs of Bewick's Wren resemble very closely some specimens of the House Wren's in size and shape, and, except in size, approach even closer to those of the Great Carolina Wren. The nest alone it would be difficult to distinguish from uncovered nests of *T. adon*, but the eggs are not nearly so thickly marked. Normal specimens of each can be always differentiated. The House Wren, however, sometimes lays eggs very similar to typical eggs of Bewick's Wren."

164. *Pyrranga astiva*.

Summer Redbird.

Mr. H. Nehrling of Lee County, Texas, says this bird is quite a common summer resident in that section and commences nest-building about the middle of May, usually placing it at the extremity of a horizontal branch from seven to twenty feet from the ground. It is, he says, a very loose and open structure composed of bark-strips, slender stems, oak-catkins and leaves. The eggs, usually four in number, cannot with certainty be distinguished from those of the Scarlet Tanager. The Summer Redbird is recorded as a common summer resident in Southern Ohio.

170a. *Carpodacus frontalis rhodocolpus*.

Crimson House Finch.

This variety of House Finch is found throughout the Pacific coast, from Oregon to Mexico. I am informed by Prof. Evermann that this species is by far the most common bird that breeds in Ventura County, California.

† This admirable work demands more than a passing notice. It is not too much to say that it rivals in beauty and truthfulness of illustration the production of Audubon, and the most skillful critic would almost lose his critical powers in admiration upon beholding the striking likenesses presented in this work. The text is preeminently accurate.

He obtained the first full complement of its eggs early in April. Of their nesting habits he says: "They will place the nest anywhere, from the limb of any tree to the side of a hay-stack, or a tin can in a porch." The eggs, usually five in number, are of a pale bluish-white, marked with spots and lines of a dark brown or black, and measure .80 to .75 in length, with an average breadth of .60.

181. *Astragalinus tristis*.

American Goldfinch; Yellow-bird.

In "The Young Oologist"* for November, 1884, Mr. Geo. F. Breuninger, of Beattie, Kansas, truthfully writes: "Long after all other birds have sought their sunny haunts of the South, the Goldfinch is still to be seen with us and cheering us with his sweet songs far into the cooler days of autumn. I have seen flocks of hundreds of them in mid-winter when the ground was covered with snow, but they seemed to be as merry as ever picking the seeds from the thistle and the wild sunflower."

This species is also known by the name of "Lettuce Bird." In his "Report on the Birds of Ohio," Dr. Wheaton has the following on its nesting habits: "The Yellow-bird breeds late, with us, usually in July. The nest is built in trees. Often the shade trees or fruit trees in cities are chosen, and they appear to be the only birds breeding with us whose nest is ever placed in a peach tree. It is usually from fifteen to twenty feet from the ground, and built of moss, grass and small vegetable fibres, thickly lined with vegetable down. The eggs are five, light bluish-white, unmarked. They measure about .65 by .52."

183. *Astragalinus Lawrencei*.

Lawrence's Goldfinch.

Lawrence's Goldfinch breeds abundantly in Northern California, placing the nest usually near the extremity of the limb of a live oak, where it is well concealed and hard to find. They nest in April. Prof. Evermann says he found the first full set of eggs April 6. The nest is composed of wool, fine grasses, down and feathers, closely matted together and lined with the long hair of the larger animals. They are sometimes made entirely of grasses. The eggs are from four to five in number, and are pure white. Four typical eggs before me measure as follows: .62 by .47, .64 by .45, .62 by .44, .62 by .48.

* "The Young Oologist," a monthly magazine devoted to the study of the Nests and Eggs of Birds. Published by Frank H. Lattin, Gaines, Orleans Co., N. Y.

204a. *Chondestes grammica strigata*.

Western Lark Finch.

I am informed by Prof. Evermann that this species is a very common winter resident of Ventura County, Cal., but most of them go farther north to breed. He states that they begin nesting about the middle of April. They were found nesting in live oaks, sycamores, orange and lemon trees, at heights varying from five to twenty-five feet above the ground. One nest was found on the ground. The eggs were from four to six in number, usually five. The color is about the same as those of *C. grammica*, possibly a little darker shaded.

240b. *Pipilo fuscus crissalis*.

Californian Brown Towhee.

This species breeds very abundantly in Southern California. It nests rather early, as young birds at least a week old were found April 3d by Prof. Evermann. A set of eggs were taken the same day. The nest is usually built in a sage greasewood, or cactus, one to five feet from the ground. They are, however, found nesting in live oaks, ten to fifteen feet from the ground.

245. *Zamelodia melanocephala*.

Black-headed Grosbeak.

In California this bird is quite common. They begin to nest about the first of April—nesting abundantly in the willow and water-moctic copes near Santa Clara River and among the live oaks along the small creeks. The nests are placed from five to twenty feet from the ground. The eggs are invariably four, of a greenish-blue, dotted with drab and lilac sometimes, and most usually forming a confluent ring about the larger end. A set of four eggs before me give the following measurements: .96 by .67, .96 by .66, .96 by .67, .95 by .66.

246. *Guiraca caerulea*.

Blue Grosbeak.

T. D. Perry, of Savannah, Ga., in "The Young Oologist" for November, 1884, makes the following observations concerning the nesting habits of this bird: "They commence to build early in May. I have found their nests as early as May 11th with eggs slightly incubated. They generally choose a low, swampy place to build, and seem to prefer pine saplings to all other places. They build a neat and compact nest, composed outwardly of snake-skin (I have never found one that did not contain one), withered leaves and plants, and lined with fine fibrous roots. Lay three

eggs (sometimes four), pale blue, turning to a lighter shade after being blown. Like all other birds, their eggs vary somewhat in size. I am positive they raise two, if not three, broods during the season, as I have found a nest with fresh eggs as late as July 7th."

Mr. Nehrling writes me that this is not a very common bird in Texas, but is quite regularly distributed. "It arrives from its winter quarters about the 20th of April, and commences nesting about the middle of May. The nests discovered were always built in blackberry bushes, along road-sides and on the border of woods. A typical nest, found May 18th, 1880, near Spring Creek, Harris County, and now in the Smithsonian Institution, was built in a blackberry bush, about two feet from the ground. It is a very beautiful structure. Exteriorly it is built of long, fine rootlets, pieces of snake-skin, dry leaves; near the rim it is almost entirely built of catkins and small pieces of cotton. It is lined with very fine rootlets of a light-brown color. The depth of the nest was $1\frac{3}{4}$ inches, diameter $2\frac{3}{4}$. The eggs, usually four in number, are of a light bluish-white. Only one brood is reared in a season."

248. *Passerina cyanea*.

Indigo Bird.

The nest is built in low bushes of leaves and grass. The eggs are four or five, white, with a bluish tinge, unspotted. They measure .75 by .58. A nest in my collection contains three eggs which are thinly dotted at the larger end with reddish-brown. This is, however, rarely the case.

249. *Passerina amana*.

Lazuli Bunting.

A nest with four eggs of this species, collected in San Geronio Pass, California, June 10, 1883, is in my collection. The nest is composed of fine strips of bark and lined with hair. It was placed in a clump of weeds one foot from the ground. The eggs are light-blue, unspotted, and are hardly distinguishable from those of the common Bluebird—probably a little more rounded—oval. The four eggs measure respectively: .81 by .62, .83 by .64, .79 by .62, .83 by .64.

251. *Passerina ciris*.

Painted Bunting; Nonpareil.

This species is a very common resident of the Southern States. It makes its appearance about the end of March or early in April, when the pleasant odor of many thousands of flowers now in bloom fills the air. It is extremely wild and shy—commences nesting early in May. Mr.

Nehrling says that near Houston, Texas, the nest is commonly placed in blackberry-bushes, and in the almost impenetrable hedges of the Cherokee-rose (*Rosa larvigata*). In the more western part of Texas, he says, he discovered nests usually in the larger peach-gardens. It was placed from two to ten, sometimes twelve feet from the ground, and is built of plant-stems, fine grasses, spider-webs and bark-strips, lined with finer grasses or very fine rootlets. Almost all the nests obtained near West Yegua, Lee County, were built of plant-stems, grasses, rootlets and large pieces of snake-skins, lined with fine grasses and the inner bark of trees. Some nests are small, others are large and bulky. The eggs are five, sometimes only four. They have a dull or bluish white ground-color, and are marked with dark and reddish-brown spots, especially at the larger end. They rear one, sometimes two broods in a season.

264. *Sturnella neglecta*.

Western Meadow Lark.

This Lark is found in the United States west of the Mississippi. It breeds abundantly in California, Oregon, Washington Territory and Colorado. Nesting habits similar to those of the Eastern Lark. Four eggs before me, collected in California, measure as follows: 1.08 by .86, 1.09 by .86, 1.05 by .77, 1.05 by .77. They are of an oblong-oval shape, the ground white, sparingly spotted with purplish and reddish-brown, chiefly at the larger end. The mottling is much finer than in the eggs of the Eastern species.

269. *Icterus cucullatus*.

Hooded Oriole.

The Hooded Oriole is essentially a Mexican species, though it also extends northward into Texas at the Rio Grande, and into Southern California and Arizona. To Prof. B. W. Evermann belongs the credit of first finding this beautiful Oriole breeding farther north than any one before had found it. Dr. Cooper, who had given it more study than any other ornithologist, informs him that he had never found the bird or its nest so far north as San Buenaventura, Cal. Prof. Evermann writes me that he found it breeding quite numerously as far north as San Buenaventura, and that it was observed breeding at Santa Barbara, thirty miles farther up the coast, though it was not so common as in Ventura County. He found the first full set of eggs about May 1st. The average number of eggs is five. The nests, he states, were suspended in sycamores generally, often in live oaks. These are usually from five to fifteen feet from the ground. They are composed of grass which has been picked while yet green, so

that the nest is usually of a bright straw color. The eggs vary somewhat in shape, some being obtuse and more spherical, others more pointed and oblong. They have a beautiful white ground, marbled, blotched and dotted with large dashes and irregular zigzag lines of purple, brown and black, chiefly at the larger end. A complement of four typical eggs, collected by Prof. Evermann near Santa Paula, Cal., April 13, 1881, measure as follows: .94 by .66, .94 by .64, .92 by .63, .89 by .63.

286. *Pica rustica Hudsonica.*

Black-billed Magpie.

The American Magpie has an extended western distribution from Arizona on the south to Alaska on the northwest, and is found from the Missouri River to the Pacific coast. It is common throughout the central region of Oregon and Washington Territory. Breeds abundantly in Colorado. Begins building in April. The nest is an elaborate affair placed in the fork of a small, bushy tree, and it is said, never a pine, from six to fifteen feet from the ground, composed externally of sticks ingeniously wedged together. Upon this is a layer of clay one half or three-quarters of an inch in thickness, which, being applied soft and well worked in, becomes very hard, and binds the structure firmly together. It is lined with hair feathers, etc. Rising from the walls of the nest is a dome of twigs and sticks very ingeniously and securely woven together, with a hole in one side forming a shelter for the bird while setting. There are, sometimes, two openings opposite each other, evidently to make room for the long tail of the bird. The eggs, according to some authors, vary from five to nine in number. Their ground-color is a grayish-white, or light gray with a yellowish tinge spotted with blotches, dottings and dashes of purplish or violet-brown.

287. *Pica Nuttalli.*

Yellow-billed Magpie.

Confined exclusively to California; breeds abundantly, and begins nesting about the first of April. Nest constructed similar to that of the preceding species. The eggs have a ground-color of light drab so thickly marked with fine cloudings of an obscure lavender color as nearly to conceal the ground, and to give the eggs the appearance of an almost violet-brown. A set of six eggs in my collection, collected in Wheeler Canon, near Santa Paula, Cal., exhibit the following measurements: 1.31 by .89, 1.28 by .89, 1.31 by .89, 1.32 by .89, 1.30 by .88, 1.28 by .90.

293. *Aphelocoma Californica.*

California Jay.

The California Jay is a Pacific Coast species, occurring from the Col-

umbia River southward to Cape St. Lucas. It is not found in the interior at any considerable distance from the coast. The nest is usually placed in a low tree or bush. It is large and strong, built of twigs, roots and grass. The eggs are from three to five, of a dark sea-green, marked with numerous pale brown blotches, chiefly at the larger end. A complement of four eggs in my collection, collected near Santa Paula, March 29, 1881, exhibit the following dimensions: 1.03 by .78, 1.08 by .81, 1.08 by .81, 1.03 by .81.

301. *Milvulus forficatus*.

Scissor-tailed Flycatcher.

This bird is quite common on the prairies of Southern Texas. They nest in trees at heights varying from six to twenty feet. The nest is composed externally of small sticks, and lined with fine, soft grasses. They measure about two and one half inches in height, and nearly five in external diameter; the cavity is two inches deep and three wide. The eggs are from three to five in number, of a rounded-oval shape, tapering at one end. The ground-color is white, marked with a few large dark red spots, and occasionally of an obscure purple, chiefly at the larger end. Four typical eggs in my collection, collected in Comal County, Texas, May 30, 1881, measure as follows: .87 by .70, .87 by .67, .91 by .69, .87 by .68.

324. *Empidonax acadicus*.

Acadian Flycatcher.

I quote the following from Dr. Wheaton's excellent "Report on the Birds of Ohio":

"Abundant summer resident from May to September. Breeds. Frequents woodland, and is seldom seen far from its breeding spot except when migrating, when it is a frequent visitor in the gardens of this city (Columbus), often remaining several days. The favorite retreats of this bird are beech woods of considerable extent. Here they are found perched on the lower branches of trees, or higher up on the border of a glade. Dark woods are preferred to high, open, mixed woodland. In such localities they form a striking feature in the bird fauna. Their ordinary note is a sharp, quick, loud and emphatic *what-d'ye see*, which, coming from an unseen and perhaps unsuspected performer, is really startling in the stillness. Frequently the bird utters a low, rapid twittering note accompanied by a rapid movement of the wings, as if in ecstasy. A similar action is sometimes seen in the Wood Pewee, the noise resembling the rustling made by the Woodcock's flight.

The nest of the Acadian Flycatcher differs in position from all other species of the family breeding with us, in being invariably placed in a hor-

horizontal fork, usually not more than fifteen feet from the ground. In the manner of its attachment it resembles the nests of the Vireos, being fastened by the brim while the bottom is unsupported. In structure, however, it is very different. It is composed almost entirely of small stems and tops of the grass commonly known here as "roller-grass." These are loosely thrown together forming a shallow cup bound to the fork with spider's web. When just finished they present a very slovenly appearance, considerable quantities of the grass hanging from the periphery of the nest, so that it looks like a tuft of hay, caught by the limb from a load driven under it. If the weather is damp this material soon falls off in the wind and the body of the nest becomes more compact. Frequently the nest is so thin that the eggs may be counted from below.

The eggs vary from two to four, and I have often seen nests with a single egg well advanced in incubation, or a single young bird, and believe from the position of the nest, towards the end of a long horizontal or declining limb, that eggs frequently fall from it when shaken by the wind. They are of a light yellowish buff color, with a decided flesh colored tint when fresh, and rather sparsely spotted with light brown. They measure .78 by .56.

The Acadian Flycatcher is a favorite nurse of the Cow-bird; most nests contain one egg of this parasite, and I have seen as many as four. On one occasion I saw a Cow-bird in the effort to deposit her egg in this nest, turn out all the eggs, the twig on which the nest was placed yielding to her weight."

325a. *Empidonax pusillus trailli*.

Traill's Flycatcher.

The following on the nesting habits of this bird is taken in part from my article which appeared in the "Ornithologist and Oologist," for May, 1882:

"The locality usually selected as a nesting site by this species is in a thick growth of alders bordering a stream. The nests are scarcely ever placed higher than eight feet from the ground, in most cases about four. In nearly all instances they are built in an upright fork. The nests have a strong resemblance to the usual structure of the Yellow Warbler, but probably lack in compactness and neatness. The external or greater portion of the nest is composed of hempen fibres, internally lined in true Flycatcher style with fine grasses. In some, however, there is a slight lining of horse-hair and of the down from the milk-weed or thistles. A typical nest measures two and a half inches in height and three in diameter, with a cavity one inch and a half in diameter and two inches deep. In nearly

all cases three eggs is the usual complement, rarely four, and in a great many in varying stages of incubation. The ground-color of the eggs is extremely variable. In some it is of a cream, in others approaching buff. In four sets before me there is a striking variation in the distribution of the markings. They are usually marked, chiefly at the larger end, with large blotches of red and reddish-brown. This, however, is only characteristic in one of these sets, while in the others the markings are simply very small dots sparingly sprinkled over the surface; in some these dottings are scarcely visible, giving them the appearance of an almost unspotted surface. Six eggs exhibit the following measurements: .72 by .55, .70 by .53, .70 by .52, .64 by .53, .69 by .52, .70 by .53. There is scarcely any perceptible difference between the eggs of *Trailli* and those of *Acadicus*. The western eggs of *Trailli* probably have a darker ground, and the spots are more vivid, but I do not believe any one can tell them apart with certainty.

361. *Picus pubescens*.

Downy Woodpecker.

Mr. Thomas M. Earl while on a collecting trip succeeded in obtaining a set of this species in Green County, Ohio, May 10, 1884. He found the nest constructed in the favorite haunts of this very cunning little climber—in the decayed limb of an apple-tree, some ten feet from the ground. What is remarkable concerning the nesting place was, that just above the entrance of the nest another hole had been excavated and then filled with a hickory nut. It appeared as though it was the first hole and did not, for some reason, prove satisfactory and was deserted. But how the hickory nut got there is a question, as there was no reason to believe that it had been placed there by a human hand. The first excavation was as fresh as the one just below it. The eggs are of a pure glossy white, usually four in number. The four eggs collected by Mr. Earl measure respectively: .75 by .62, .77 by .62, .73 by .61, .73 by .62. I fail to find the eggs of this bird so large as many authors have quoted them.

371. *Hylotomus pileatus*.

Pileated Woodpecker; Logcock.

The nest of the Pileated Woodpecker is an excavation dug out by the bill of the bird in a large limb or trunk of a high tree either living or dead. The eggs are of a rounded oval shape, glistening white, unmarked. Mr. Gilbert Siddell, who spent the greater portion of the summer season (1884) in Clinton County, Illinois, examined a large number of the nesting

places of this species. The nests as he found them were situated at an average height of about twenty-five feet, and were usually excavated in the main trunk of a dead hickory tree. The depth of the excavations were eighteen inches, and the diameter about eight. All the nests examined contained from three to four young about May 1st, indicating that the eggs were deposited about the middle or first part of April. The Pileated Woodpecker, instead of the name of Logcock, is sometimes erroneously called "Woodcock."

395. *Asio Americanus*.

American Long-eared Owl.

Dr. Howard Jones has a set of the eggs of this species which was until recently in my collection. It is a set of five and was collected near Morral, Marion County, Ohio, April 9, 1884. They are to be figured in a forthcoming number of his magnificent work: "Illustrations of the Nests and Eggs of the Birds of Ohio." The eggs are white; oval in shape. Three specimens of the above mentioned set measure as follows: 1.65 by 1.27, 1.59 by 1.33, 1.75 by 1.28. In California this birds begin nesting about the middle of February.

405a. *Bubo Virginianus subarticus*.

Western Horned Owl.

This Western variety begins nesting in California about the first of February, the same time as our Eastern species. It builds usually in live oaks, placing the nest in the forks of horizontal limbs. The eggs are invariably three in number, white. A set in my collection obtained near Newhall, Cal., exhibit the following dimensions: 2.09 by 1.75, 2.22 by 1.78, 2.19 by 1.77, 2.06 by 1.73.

425. *Pandion halietus Carolinensis*.

American Osprey; Fish Hawk.

Mr. W. W. Worthington, of Shelter Island, New York, has favored me with an interesting description of the nesting habits of this species. I give it entire:

"The most extensive breeding ground of the Fish Hawks in this vicinity is Gardiner's Island, situated between Plum Island, at the east end of Long Island Sound, and the southern fork of Long Island, and about ten miles east of Shelter Island. They arrive in this locality almost invariably on the 20th of March and immediately take possession of their nest of the previous year, providing it has not blown down, and commence to repair any damage it may have received. They are exceedingly

variable in their choice of a nesting place. On Gardiner's Island they all build in trees, at distances varying from ten to seventy-five feet from the ground, but on Plum Island, where a great many breed, a large number place their nests *on the ground*, some being built up to the height of four or five feet, while others are simply a few sticks arranged in a circle, and the eggs are laid *on the bare sand!* On Shelter Island they build on the chimneys of dwelling houses; and a pair has a nest on the cross-bar of a telegraph pole. Another pair has a nest on a large rock in Gardiner's Bay near Gardiner's Island. Their nests are constructed chiefly of coarse sticks and seaweed, and whatever else the birds happen to find, such as pieces of dry cow dung, bones, old shoes, straw, etc. The largest clutch of eggs I have taken, or seen, is four. The usual number is three, although sets of two are common."

427. *Elanus glaucus*.

White-tailed Kite.

Prof. Evermann has furnished me with the following interesting account concerning the nidification of this beautiful species:

"May 4, 1880, I found my first nest (a) of this bird. It was placed in the extreme top of a cottonwood, fully forty feet from the ground. It was not a very substantial structure, was composed of sticks, forming scarcely more than a mere platform, so shallow was the cavity. It was very sparingly lined with the inner bark of the cottonwood. All other nests found were the same in structure as this, except in one case (c), where the depth was greater, and was well lined with barley straw. The next (b) I found on April 11, '81. This was in the extreme top of a live oak, as was also the third one (c), which I found the next day, April 12. On May 1, I found another (d) in the top of a cottonwood. The only important fact regarding the position of the nest of this Kite is this: Always placed just as high in the tree as possible. I did not notice an exception; and so slender are the limbs or twigs among which it is placed, that he who attempts to climb to the nest stands about three chances to two of breaking his neck.

From nest "a" I got four handsome eggs, but they were somewhat incubated. From "b" four more fresh ones, (which I sent you No. 180); from "c" I got four very fine eggs, April 12, and, on June 4, three more which I sent you, but which got broken, save one, I believe). In "d" I found four young, perhaps two weeks old. So, I think four eggs is the almost invariable number; that, when robbed of a first set, another will likely be laid; that they breed in the same grove—seldom in the same nest—year after year; that the usual time of nesting is from April 1 to May 1;

and, lastly, though resident at Santa Paula, they are rare. I do not think there were more than a dozen pairs in the whole Santa Clara Valley."

Four eggs mentioned by Prof. Evermann exhibit the following measurements: 1.27 by 1.62, 1.27 by 1.69, 1.27 by 1.62, 1.27 by 1.64. The ground color is a creamy-white, thickly blotched with rich reddish-brown. The eggs of the European Kestrel and those of the White-tailed Kite are precisely alike in markings; the eggs of the latter, however, are much larger in size.

473b. *Bonasa umbellus sabinei*.

Oregon Ruffed Grouse.

I have a set of six eggs of this species, collected in Coos county, Oregon, April 28, 1880. Their color is a rich creamy-white, unspotted. The nest was a hollow of the ground, made by the bird and lined with leaves; it was situated partly under a fallen tree, and quite hidden by a growth of bushes. The inside diameter of the nest was about six inches, and the depth about four. The eggs exhibit the following dimensions: 1.55 by 1.16, 1.55 by 1.16, 1.55 by 1.16, 1.56 by 1.16, 1.57 by 1.17.

479. *Centrocercus urophasianus*.

Sage Cock.

Mr. G. G. Mead of Rawlins, Wyoming Territory, has given me a very lengthy and interesting life history of this bird, from which I compile the following: "The Sage Cock, 'Sage Grouse,' or 'Sage Hen,' as it is commonly called in the West, is principally found in what are known as the 'Sage bush regions' of the Territories of Wyoming, Montana, Idaho and Arizona. A few are still to be met with in Colorado, Nevada, California and other Western States and Territories, where the march of civilization has not exterminated their favorite food, the leaves of the wild Sage bush which, with a heavy growth, covers large tracts of Western country. This is the natural home of the bird. In size and carriage they strongly resemble the Wild Turkey, but their color is so near like that of the ground and sage bush that it is difficult to detect their presence. In summer their food is sage leaves, berries and insects, but their sole food in winter seems to be sage leaves. The male is a little larger than the female; their weight is about ten pounds, and that of the female seven, live weight. They roam everywhere in winter in large flocks, the snow quenching their thirst instead of the water in the streams which supply them in the summer and along which they scatter in small bands at this season. The males flock together during the season of incubation; the females always staying by themselves and rearing their young. The

young and old are sometimes very tame, but more shy on stormy days and more afraid of a man on horseback than on foot. They commence to lay about the 15th of May. I have found nests with six, nine and twelve in process of incubation. The nests are very rudely and coarsely constructed, being often only a mere hollow in the sand, and never anything more than a few blades of long, dead grass and small twigs laid around the edges. I have often found the nest in very barren and exposed situations, among very low bushes, instead of among the large sage bushes." Five eggs collected by Mr. Mead, in my collection, are buff, thickly speckled with small round spots of reddish-brown and chocolate. In color they very much resemble those of the Wild Turkey.

495. *Nycticorax grisea nœvia*.

Black-crowned Night Heron.

I trust no apology is needed for inserting the following brief account of the nesting habits of this bird. It is from the pen of M. B. Griffing, of Shelter Island, New York:

"Gardiner's Island, which is ten miles east of this place (Shelter Island) is the nearest breeding place of this species with which I am acquainted, although it is not many years since there was a heronry here.

"On May 17, 1880, my friend, Mr. Worthington, and myself, visited the heronry on Gardiner's Island, where there were a hundred pairs or more, of these herons breeding. The locality is a swampy place, around the edge of which grow maple and tupelo trees, in which the nests were placed, at heights ranging from ten feet to fifty feet from the ground. They were composed entirely of sticks and twigs; the latter were used for the lining, and the nests were considerably hollowed.

According to my observations, four eggs is the usual number laid, more often less than more; in fact, out of all the eggs of this species collected in the past three years, by Mr. Worthington and myself, there were but four sets containing more than four eggs; of these, three were sets of five and one a set of six.

There were sometimes as many as four nests in one tree, all containing eggs.

As we entered the swamp the birds arose from the trees and their nests, making a great outcry; and as they arose above the trees, the Fish Hawks, which were very plenty, dashed down upon them, and the poor birds, scared almost out of their wits, plunged back into the swamp, redoubling their outcries. This squaking, as it may be called (and I can think of no other word so appropriate and expressive), is very ludicrous; and any one who has been on a boat with a number of seasick people, will at once notice

the similarity of the noises made by them in that condition, and those made by a colony of Night Herons on being disturbed.

This species also feeds by day as well as by night, and I have often seen several of them at once feeding in the creeks at low water, in the daytime, and it is also a constant resident throughout the year, remaining here in the severest winters. I have killed them in the coldest winter weather when the creeks and harbors were frozen up, and snow covered the ground everywhere."

522. *Ochthodromus Wilsoniüs.*

Wilson's Plover.

A set of four eggs of this species, collected in Johnson county, Nebraska, is in my collection. The nest was a slight hollow in the ground, covered with dry grass. The eggs are of a light clay color, spotted and blotched with reddish and umber-brown. They measure respectively: 1.83 by 1.29, 1.83 by 1.29, 1.75 by 1.28, 1.64 by 1.28. I have made mention elsewhere in this work, of the difference in the markings of the eggs of this species, described by some authors, and those specimens in my collection. I find also a great difference in the sizes. The usual sizes given are from 1.35 to 1.40 in length, and from 1. to 1.05 in diameter, those in my collection being much larger.

579. *Gallinula galleata.*

Florida Gallinule.

Mr. Langdon gives the following account of this species as he observed it in Ottawa county, Ohio:

"A very common species, breeding abundantly in the more open portions of the marsh. The nests are situated amongst the 'saw grass,' and constructed of its dried blades. Their height varies, some almost resting on water, while others are placed a foot or more above it and have an incline eight or ten inches in width, made of dried grass, extending from the water's edge, which makes them a conspicuous object where the surrounding vegetation is not too dense. The dozen or so sets of eggs taken were in various stages of incubation, and a few young were observed following their parents. The young, when a day or two old, are about the size of a newly-hatched domestic chicken, and when found in the open water are easily captured; they present a curious sight, paddling for dear life, with their bright red and orange bills standing out in strange contrast with their sooty-black, down-covered bodies."

I have a set of eight eggs collected this season (1884), by Dr. Howard Jones, near Circleville, Ohio. Dr. Jones informs me that he collected

a number of sets in the same locality. The eggs exhibit the following dimensions: 1.70 by 1.20, 1.81 by 1.18, 1.81 by 1.17, 1.78 by 1.23, 1.84 by 1.25, 1.84 by 1.22, 1.77 by 1.24, 1.83 by 1.16.

686. *Sterna fluviatilis*.

Common Tern; Wilson's Tern.

This species breeds in various localities throughout its North American range.

Mr. Worthington, of Shelter Island, New York, who furnished me with notes on the nidification of the Fish Hawk, has kindly given me the following observations on this beautiful Sea-swallow:

“Although a few Wilson's Terns breed on nearly every sandy point near here, Gull Island, situated a mile or so east of Plum Island, is their chief breeding ground in this section. Here they breed by thousands, fairly filling the air, when you land and disturb them. Their nests are always placed on the ground or rocks, and are usually composed of a few pieces of grass and seaweed. They place their nests all over the Island above high water line, on the beach, on the sides of the bluffs, all around, and in the garden cultivated by the light-house keeper. Fresh eggs can be obtained there from the 10th of June to the middle of July, as eggging parties keep them cleaned off about as fast as they are laid. I collected a set of *four* eggs of this species on Gull Island, last spring (1881), which is the only set I ever saw containing more than three eggs, which is the usual number laid.

688. *Sterna dougalli*.

Roseate Tern.

“Goose Island, a small island half or three-quarters of an acre in extent, situated in Long Island Sound, about two miles from the Connecticut shore and half or three-quarters of a mile from Faulkner's Island, is the only breeding ground of this species with which I am acquainted.

Early in the morning of June 22nd, 1881, accompanied by my friend, Mr. W. W. Worthington, I landed on this small island. Before we got near the island we saw a few Terns flying around, but as we landed the birds arose from the ground in a cloud, uttering their harsh cries and making such a din as to almost bewilder us.

We immediately proceeded to the upland of the island, which is from two to six feet or more above the beach, and is covered with a thick growth of rank weeds and grass. In this rank growth, some concealed in

the thick grass and weeds, others in plain sight, the nests covered the ground, and three or four nests could sometimes be reached without taking a step. These nests were nothing but slight hollows in the ground, lined with dry grass, and contained, usually, two eggs. I am satisfied that this is the usual number laid by this species, as there were but two sets containing three eggs, out of more than two hundred eggs that we took, and the sets were completed as incubation was begun in nearly every set, while many were almost hatched. Many of the birds lay their eggs on the shore, just above high water mark, but none of these are ever hatched, as Capt. Brooks, the owner of the island, and who is light-house keeper on Faulkner's Island, picks them all up every two or three days and takes them home to eat, while he leaves those on the upland to hatch.

The eggs of this species differ from those of *Sterna fluviatilis* in shape and markings, being usually less blunted at the small end, and the markings are usually much finer and very much more numerous. By placing a tray of eggs of each species side by side, the difference is very marked, and they can be distinguished at a glance.

While we were taking the eggs the birds hovered in great numbers close over our heads, sending forth the harsh guttural cry peculiar to this species, then suddenly all would fly off to windward, uttering cries which sounded like the syllable, tip, tip, tip, uttered in a high key, only to return again with their harsh cries. They repeated these cries time after time, as long as we remained there.

The sight of clouds of these beautiful birds, with their easy, graceful flight, as they circle and hover over their breeding ground, is one that can be imagined better than described, but when once witnessed by the collector will never be forgotten."

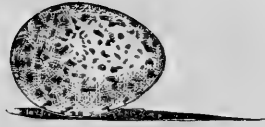
I am indebted to Mr. M. B. Griffing for the above interesting description, the results of his close observations.


723. *Cymochorea leucorrhoa*.

Leach's Petrel.

In "The Young Oologist" for November, 1884, Mr. Charles Achorn, of Rockland, Me., has written a very pleasing article on the nesting habits of the Petrels at Seal Harbor. Mr. Achorn, accompanied by two friends, arrived at the place about 8 A. M. on the 15th of June, and immediately started for Little Green, an island about eight miles out to sea, where the Terns and Petrels nest. Referring to Tern's eggs the writer says: "In a short time we had obtained all the eggs we wanted,

and after eating our dinner, turned our attention to the Petrels. We hunted around and found some old tree trunks which had lain for years, until they had settled deep into the ground. These we overturned for the Petrels' nests, the Petrel digs a furrow a foot or two deep beneath some old tree or ledge, hollows out the extremity, makes a rude nest, and deposits one egg only, one pure white egg, somewhat resembling a pigeon's, rounded at both ends and sometimes having fine flesh-tinted dots arranged about the larger end. Under some trees we found several nests, and the birds were always at home. This necessitated the unpleasant part of collecting. They could not be driven from their nests, and so we took them by the tail and tossed them into the air, whereupon they took wing and flew away, but many, like Bo-Peep's sheep 'left their tails behind them.' In my eagerness to get one off the nest I seized it by the head, but I dropped him quick, for the creature did what R. warned us against, used its weapon of defense, squirted into my hand a thimbleful of oily liquid, which had a most disgusting, sickening odor, secondly, if second, to that of the skunk. This musky odor is almost impossible to be removed, the eggs emit it, and those which I collected on that day still retain it. The oil issues from the nostril above the beak, and can be ejected to a distance of several feet. Sometimes we found two birds in one nest, but in such a case no egg was found, while one bird was always accompanied with one egg, so probably the male attends his mate until the egg is laid and then leaves. But it was awful hard work getting their nests, and eggs don't accumulate very fast at the rate of one at a time, so we thought we would try to find some other kinds. A diligent search in the rush hammock revealed but one egg of the Laughing Gull, and but two sets of Sandpipers. This was disgusting, and the mocking laugh of the Gull sounded then, anything but pleasant. For the next half hour we broke our knees on the rocks of the shore, peering under the ledges and rocks for Sea Pigeons, and we felt well repaid with four nests and six eggs, for they are very large and handsome. Then we were ready to go home, but if we had to row going we had to row much harder and further returning, but stories made the time pass pleasantly, and we gathered many hints which will be of service to us in our collecting next year. After our arrival at the shore we took supper with our host, once more looked over his birds, started for home, tired but happy and well pleased with our day's work. We voted R. a good fellow and agreed that our pleasantest day of the season had just been passed. We got home about 9 P. M., and went to bed to dream of Gulls, Terns and Petrels."



BRIEF DIRECTIONS
FOR
COLLECTING  PRESERVING
BIRDS' EGGS AND NESTS.

Remember that an egg has no financial or scientific value if it has no name. Therefore, be *very particular* to identify all eggs collected. If you do not, you will have in many respects a worthless collection. If the eggs in a nest are strange or unknown to you, do not touch them until you have procured the parent bird.

If you cannot skin the bird, preserve its head, wings, and feet until you can have them identified. A collector of eggs should *by all means learn* to skin birds and put them in proper shape. He will then make few mistakes in his data.

Empty the contents of an egg through *one* smoothly drilled hole in the side, and drill it as small as can be got along with. Force the contents out by blowing into the hole with a blow-pipe. Do not make holes at the ends of an egg for the purpose of blowing the contents out. Do not hold it too tightly in your fingers, for, if it breaks, you will learn at once that a thing of beauty is *not always* a joy forever.

If the embryo is partially developed, the hole must necessarily be made larger, and the embryo should be extracted a little at a time with an embryo hook or forceps, and cut in pieces with a fine, narrow-bladed scissors. By soaking the egg in water over night the embryo will often become very tender and can be taken out with ease.

After the egg is blown it should be thoroughly rinsed by taking water into the mouth and spirting it through the blow-pipe.

Eggs, as a rule, should be kept in sets; a "set" being those taken from any one nest; and each one of a set should bear a number referring to a corresponding one in a note-book where full particulars of the nest and eggs should be given. A printed label or data blank similar to the following diagram is also necessary:

No..... Name.....
 Collected by.....
 Locality
 Date.....
 Set..... Identity..... Incubation.....
 Nest.....

For illustration, the blank lines of the label should be filled in the following manner: No. 126. Name, Arkansas Flycatcher. Collected by J. L. Clemmons. Locality, San Diego, California. Date, June 2, 1881. Set, $\frac{1}{4}$ (indicating that the number of eggs in this set is four). Identity, bird seen on nest. Incubation, begun. Nest, made of coarse sticks and twigs, lined with hair and cotton, placed in an "Australian Gum Tree," twenty feet from the ground.

All these data should be carefully written, and the label placed in the cabinet with the eggs. If there are several sets of the same species, the collector should have his own number to distinguish the sets.

The label with full data should *always* accompany the set in making exchanges. Besides the above particulars the note-book should be filled with memoranda devoted to the record of nests found and examined; the general nature of the surroundings; the precise color and condition of the eggs when found, as all these fade quickly from the memory.

Few persons make extensive collections of nests; many birds make no nests, others only such structures as cannot well be preserved; those that can be collected require a wrapping of thread for their safe keeping. Nests and nesting places, are therefore, as a rule, described and recorded in a note-book, and not kept for study.

Go into the field as lightly equipped as possible. Before you gather together a wagon load of pullies, block and tackle, find out just where you are going to use them.

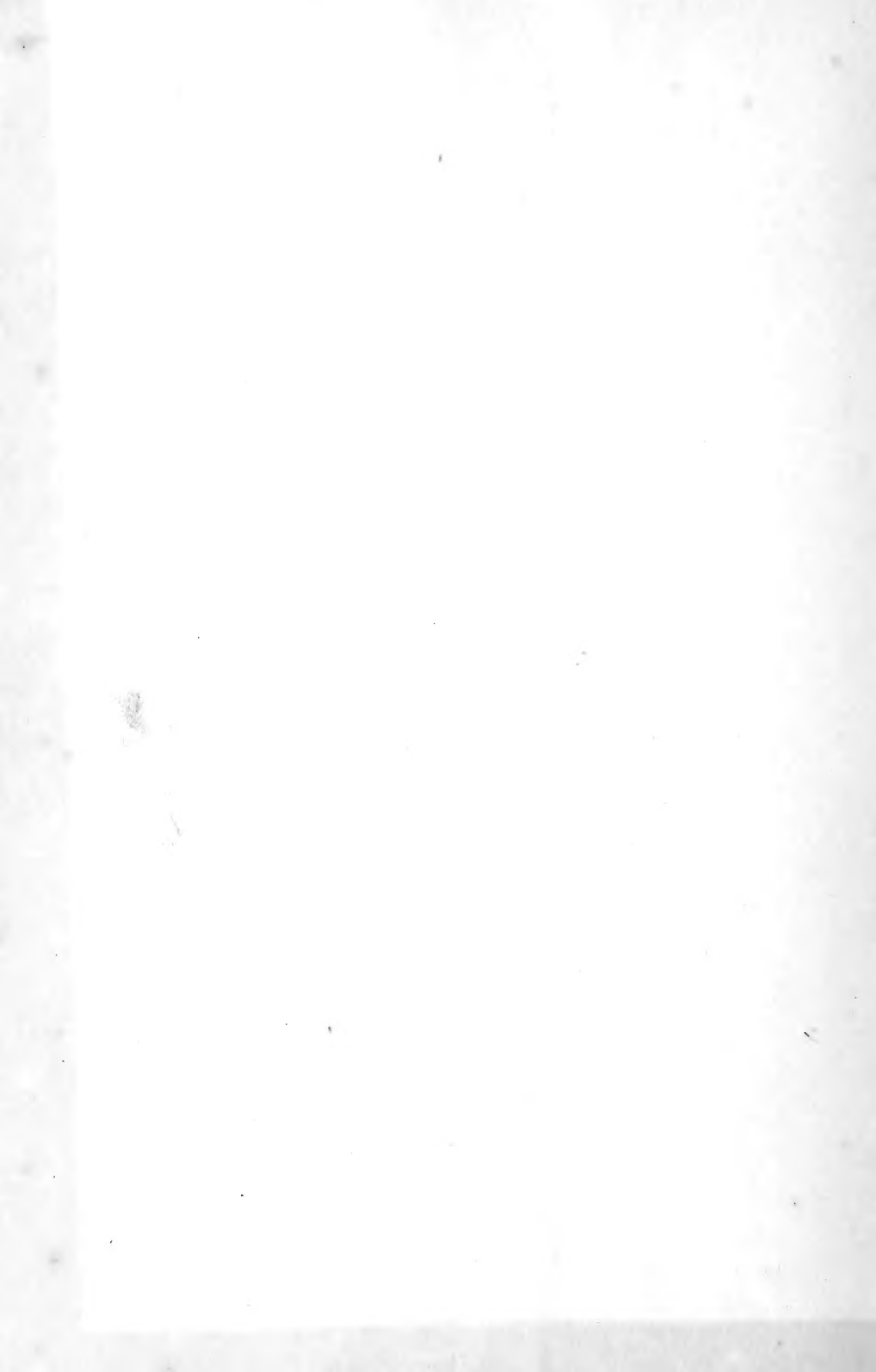
In climbing high trees, climbers should be used, and a wooden or tin box, filled with cotton, should be taken up with you; in this, securely place the eggs before descending the tree.

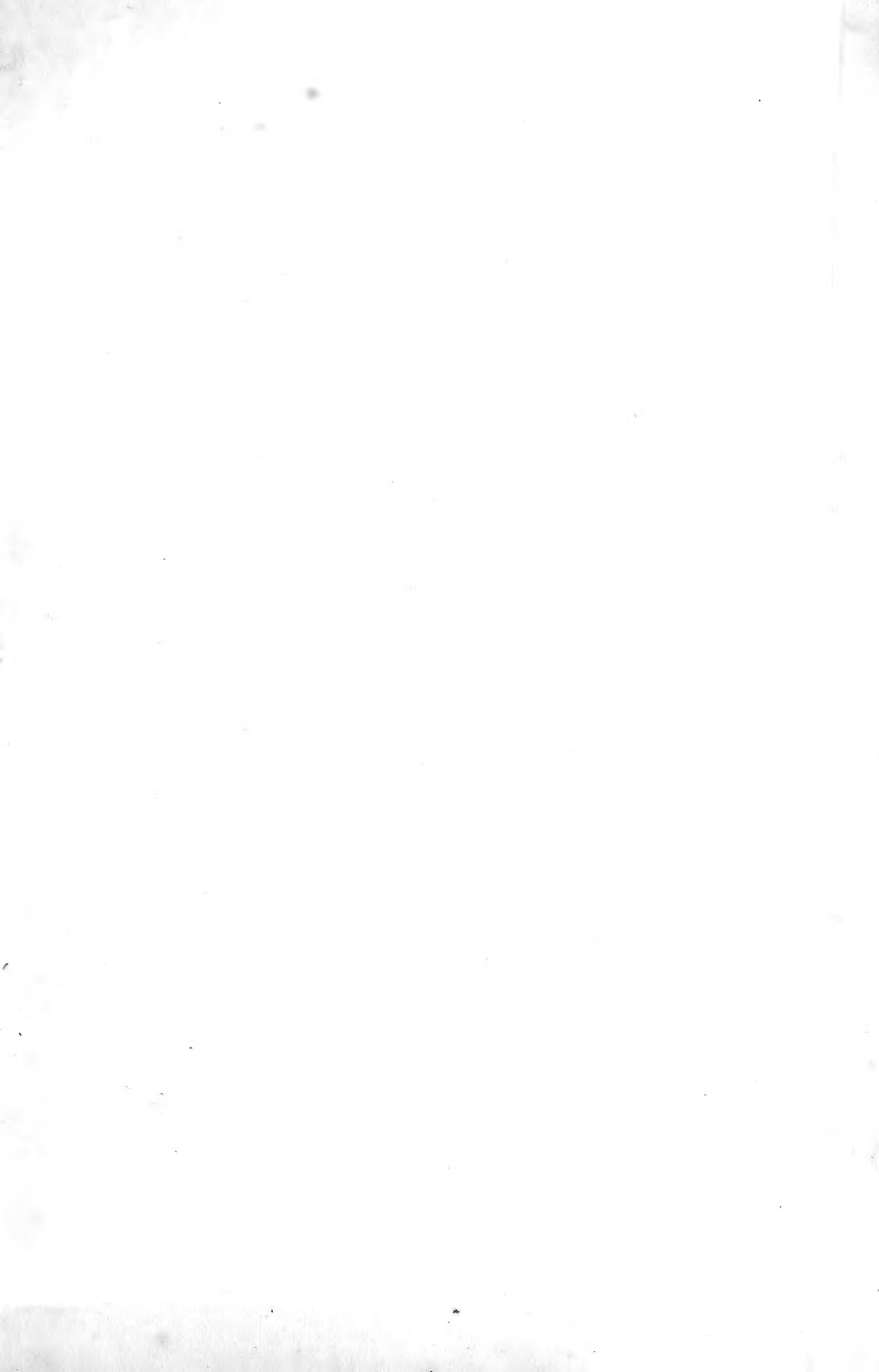
When you come across a large number of the nests and eggs of one species, do not take every nest you can lay your hands on; allow some to remain untouched. A writer in the "Ornithologist and Oologist" justly describes such a collector under the title of "The Great American Egg Hog." It is not a very elegant expression, but it certainly hits some collectors very hard.

If you are going to collect eggs for the purpose of showing them to your friends, like so many pretty beads, you had better give it up at once. Collectors of this kind do more harm than good.

When eggs are to be shipped by mail or express they should never be packed in anything but wooden or tin boxes. Each egg should be wrapped in cotton and bound tightly with thread and then wrapped in tissue paper. Place them in layers in the box with bits of cotton between each egg. The bottom, sides and end of the box is often lined with sheet cotton which is still better protection.

In all ordinary cases collections of eggs are preserved in the drawers of a cabinet. These are divided by partitions, and each section partly filled with grated cork or box-wood sawdust, in which the eggs are placed. The choice of a cabinet must depend largely upon the collector's means, if not also upon his individual preference.





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An egg check list of North American bird