EARLY RECORDS OF THE WILD TURKEY.¹

BY ALBERT HAZEN WRIGHT.

ONE of the best criteria for the determination of our most distinctive and indigenous forms is the perusal of the journals and accounts of foreign sojourners in this country. The wild turkey, "America's noblest game bird" probably receives more extended notice in this manner than any other North American avian form. Furthermore, according to our own chroniclers, no bird enters the life of the early days of this country more than it.

The explorer, La Salle (Jan. 1687) finds,² "the Plenty of wild Fowl, and particularly of Turkeys, whereof we killed many, was an ease to our Sufferings, and Help to bear our Toil with more Satisfaction." The early pioneers say,³ "the breast of the wild turkey we were taught to call bread." Their neighbors, the aborigines, pray,⁴ "O great being! I thank thee that I have obtained the use of my legs again, that I am able to walk about and kill turkeys...." The noted guest of this country, Lafayette, takes wild turkeys back with him to his farm at La Grange where he exerts,⁵ "himself to multiply their numbers." Some courtly travellers like Lady Wortley have,⁶ "a great fancy for tasting and

¹ The general literature of the wild turkey is quite extensive, and we can mention only a few of the better and more important accounts. They are: Pennant, Thomas, An Account of the Turkey. Phil. Trans., LXXI, 1781, pp. 67–81, also Arctic Zool., pp. 291–300; Buffon, Complete Oeuvres de, Tome XXXI, Nouv. Ed. Oiseaux II, Paris, 1824, pp. 178–209 (orig. edit. Ois. II, pp. 132–162); Bennett, E. T. The Gardens and Menagerie of the Zoological Society Delineated. London, 1835, Birds, Vol. II; Newton, 1896, pp. 994–996; Grinnell, G. B. Forest and Stream, 1909, pp. 852, 891, 892; McIlhenny, E. A. Outdoor World and Recreation, Jan.-Mar., Dec. 1913, Jan. and Feb. 1914; Beckmann, John. A History of Inventions and Discoveries. 2nd edit. corrected and enlarged. 4 vols. Vol. II, London, 1814, pp. 350–372.

² Joutel, M. A Journal of the last Voyage Performed by M. de la Salle to the Gulph of Mexico, etc. Translation, 1714, p. 82.

³ Howe, Henry. Hist. Colls. of the Great West. Cincinnati, 1873, p. 210.

⁴ An Account of the Remarkable Occurrences in the Life and Travels of Col. James Smith, etc. Lexington, 1799. Reprint, Cincinnati, 1870, p. 96.

⁵ Levasseur, A. Lafayette in America in 1824 and 1825; etc. Transl. by Godman. Phila., 1829, Vol. II, p. 120.

[•] Wortley, Lady Emmeline Stuart. Travels in the United States, etc. During 1849 and 1850. New York, 1851, p. 128.

trying fall sorts of unearthly, half-supernatural dishes.... As it was, we asked for wild turkey.... I believe these things.... are accounted very good and it amused us trying and experimentalizing on them." In this connection, J. F. Cooper remarks,¹ "Of fowls there are a rare and admirable collection!....it would do your digestive powers good to hear some of the semi-barbarous epicures of this provincial town expatiate on the merits of....wild turkies, and all the *et ceteras* of the collection."

Other travellers always bring their muskets with them² "to shoot the wild geese and turkies that some of our travellers in America describe so fluently,...." They "were always on the watch for an opportunity of practising (on shipboard), believing that they should have such excellent sport in America shooting wild turkies." Early in life, the native youth is taught the wiles of the turkey hunter.³ "One important pastime of our boys was that of imitating the noise of every bird and beast in the woods. This faculty was not merely a pastime, but a very necessary part of education, on account of its utility in certain circumstances. The imitations of the gobbling and other sounds of the wild turkeys, often brought those keen-eyed and ever watchful tenants of the forest within reach of the rifle. The Indians, when scattered about in the neighborhood, often collected together, by imitating turkeys by day, and wolves or owls by night." "Apropos of the rifle.... The inhabitants of this country....(were) wonderfully expert in the use of it: thinking it a bad shot if they (missed) the very head of a....wild turkey, on the top of the highest forest tree with a single ball.⁴ In fact, this ability to hunt the turkey successfully is so well known an accomplishment of the American man that Fanny Wright (d'Arusmont)⁵ in speaking of better conditions for American women mentions it as one of the distinctive pursuits or pastimes of the American man which women can not well emulate.

¹ Cooper, J. F. Notions of the Americans. London, 1828, Vol. I, p. 183.

² Weston, Richard. A Visit to the United States and Canada in 1833. Edinburgh, 1836, pp. 23, 28.

⁸ Kercheval, Samuel. A History of the Valley (Shenandoah). Winchester, 1833, pp. 372, 373.

⁴ Cuming, F. Sketches of a Tour to the Western Country, through the States of Ohio and Kentucky; etc. Pittsburgh, 1810, p. 30.

⁵ Arusmont, F. W. d'. Views of Society and Manners in America: in a Series of Letters, etc., during the years 1818, 1819, and 1820. London, 1821, p. 429.

Several times the wild turkey enters the vernacular of this country. Who in his boyhood has not upon certain occasions had "to walk turkey?" Lieut. Abert gives another saying and its origin as he understands it.¹ "It is related that a white man and an Indian went hunting; and afterwards when they came to divide the spoils, the white man said, 'you may take the buzzard and I will take the turkey, or I will take the turkey and you may take the buzzard.' The Indian replied, 'you never once said turkey to me.'"

The chief claim of the turkey with the lay mind of the country is its place in the festivals of our United States. Both at Thanksgiving and at Christmas, it holds first place. In 1621, after the first harvest was gathered and it had proved a good yield, the early Pilgrims instituted a three day festival, the well known forerunner of our present Thanksgiving day. At this first feast,² "above all, they had the turkey, of which they found a 'great store' in the forest,....the turkey, thus early crowned queen of their bounty, and to which example their descendants, even though they may have failed to imitate them in other respects, have always been loyal." In fact,³ "roast turkey, is the great event of the day. As roast beef and plum pudding are upon Christmas day in Old England, so is turkey upon Thanksgiving-day among the descendants of the puritans in New England."

Thus, we see how essential the wild turkey was to the explorer, how prominent a part of the larder it proved for the early pioneers and Indians, what sport it furnished our natives, settlers and foreign sportsmen, and how early it was singled out as our token of festival joy. Yet, why did we as a nation choose for a national emblem, a bird not necessarily indigenous and one which previously had and since has served as an insignium for other countries?

Several travellers (like Vigne, 1832, p. 213, Phillippo, 1859, p. 171) agree that Benjamin Franklin is right when he lodges his objection to the eagle and prefers the turkey as our national

¹Abert, Lieut. J. W. Notes of. Appendix No. 6 Ex. Doc. No. 41. Emory's Reconnoissance, etc. New York, 1848, pp. 501, 502.

² Love, W. D. The Fast and Thanksgiving Days of New England. Boston, and New York, 1895, p. 74.

³ Mackay, Chas. Life and Liberty in America. New York, 1859, p. 65.

emblem. His argument is so sound and so clever that it will bear repeating: 1 "Others object to the bald eagle as looking too much a *dindon*, or turkey. For my own part, I wish the bald eagle had not been chosen as the representative of our country; he is a bird of bad moral character; he does not get his living honestly; you may have seen him perched on some dead tree, where, too lazy to fish for himself, he watches the labor of the fishing-hawk: and, when that diligent bird has at length taken a fish and is bearing it to his nest for the support of his mate and young ones, the bald eagle pursues him, and takes it from him. With all this injustice, he is never in good case; but, like those among men who live by sharping and robbing, he is generally poor, and often very lousy. Besides he is a rank coward; the little kingbird, not bigger than a sparrow, attacks him boldly and drives him out of the district. He is therefore by no means a proper emblem for the brave and honest Cincinnati of America, who have driven all the kingbirds from our country;.... I am, on this account, not displeased that the figure is not known as a bald eagle, but looks more like a turkey. For in truth, the turkey is in comparison a much more respectable bird, and withal a true original native of America. Eagles have been found in all countries, but the turkey was peculiar to ours; the first of the species seen in Europe, being brought to France by the Jesuits from Canada, and served up at the wedding table of Charles the Ninth. He is, besides (though a little vain and silly, it is true, but not a worse emblem for that) a bird of courage, and would not hesitate to attack a grenadier of the British guards, who should presume to invade his farmyard with a red coat on."

INTRODUCTION INTO EUROPE.

The first introduction of the turkey into Europe has always been a mooted and now rather hackneyed question somewhat remote from the intent of this paper. Almost every article on this subject has paraphrased Newton or Bennett or Beckmann or all, and we will content ourselves with the bare recital of their statements.

¹Sparks, Jared. The Works of Benjamin Franklin. Boston, 1840, Vol. X, pp. 63, 64.

"Much labour has been given by various naturalists to ascertain the date of its introduction to Europe, to which we can at present only make an approximate attempt; but it is plain that evidence concurs to shew that the bird was established in Europe by 1530 a very short time to have elapsed since it became known to the Spaniards, which could hardly have been before 1518, when Mexico was discovered. The possibility that it had been brought to England by Cabot or some of his successors earlier in the century is not to be overlooked, and reasons may be assigned for supposing that one of the breeds of English Turkeys may have had a northern origin; but the often-quoted distich first given in Baker's Chronicle (p. 298), asserting that Turkeys came into England in the same year — and that year by reputation 1524 — as carps, pickerels and other commodities, is wholly untrustworthy, for we know that both these fishes lived in this country long before, if indeed they were not indigenous to it. The earliest documentary evidence of its existence in England is a 'constitution' set forth by Cranmer in 1541, which Hearne first printed (Leland's Collectanea, ed. 2, vi. This names 'Turkey-cocke' as one of 'the greater p. 38). fowles' of which an ecclesiastic was to have 'but one dishe,' and its association with the Crane and Swan precludes the likelihood of any confusion of the Guinea-Fowl. Moreover the comparatively low price of the two Turkeys and four Turkey-chicks served at a feast of the serjeants-at-law in 1555 (Dugdale, Origines, p. 135) points to their having become by that time abundant, and indeed by 1573 Tusser bears witness to the part they had already begun to play in 'Christmas husbandlie fare.' In 1555 both sexes were characteristically figured by Belon (Oyseaux, p. 249), as was the cock by Gesner in the same year, and these are the earliest representations of the bird known to exist."1

Of its introduction on the continent, Bennett gives us the following:² "A Frenchman named Pierre Gilles has the credit of having first described the turkey in this quarter of the globe, in his additions to a Latin translation of Aelian, published by him in 1535. His description is so true to nature, as to have been almost wholly

¹ Newton, Alfred. A Dictionary of Birds. London, 1896, pp. 995, 996.

² Bennett, E. T. The Gardens and Menagerie of the Zoological Society Delineated Birds. London, 1835, Vol. II, pp. 213, 214.

relied on by every subsequent writer down to Willoughby. He speaks of it as abird that he has seen; and he had not then been further from his native country than Venice; and states it to have been brought from the New World.

"That turkeys were known in France at this period is further proved by a passage in Champier's Treatise de Re Cibaria, published in 1560, and said to have been written thirty years before. This author also speaks of them as having been brought but a few years back from the newly discovered Indian islands. From this time forward their origin seems to have been entirely forgotten, and for the next two centuries we meet with little else in the writings of ornithologists concerning them, than an accumulation of citations from the ancients, which bear no manner of relation to them. In the year 1566 a present of twelve Turkeys was thought not unworthy of being offered by the municipality of Amiens to their king; at whose marriage, in 1570, Anderson states in his History of Commerce, but we know not on what authority, they were first eaten in France. Heresbach, as we have seen, asserts that they were introduced into Germany about 1530; and that a sumptuary law made at Venice in 1557, quoted by Zanoni, particularizes the tables at which they were permitted to be served.

"So ungrateful are mankind for the most important benefits, that not even a traditionary vestige remains of the men by whom, or the country from whence, this most useful bird was introduced into any European states. Little therefore is gained from its early history beyond the mere proof of the rapidity with which the process of domestication may sometimes be effected."

In many respects, Prof. John Beckmann¹ of Univ. of Gottingen, has given us one of the most exhaustive and best accounts of its introduction into Europe. He presents much of what is written in the two foregoing quotations and we select only such as supplement these.

"These testimonies (concerning their early discovery in America), in my opinion, are sufficiently strong and numerous to convince any naturalist that America is the native country of these fowls; but

¹Beckmann, John. A History of Inventions and Discoveries. Transl. from German by Wm. Johnston. 2nd edit. corrected and enlarged. 4 vols. London. Vol. II, 1814, pp. 350–372.

their weight will be still increased if we add the accounts given us when and how they were gradually dispersed throughout other countries. Had they been brought from Asia or Africa some centuries ago, they must have been long common in Italy, and would have been carried thence over all Europe. We, however, do not find that they were known in that country before the discovery of America. It is certain that there were none of them there at the time when Peter Crescentio wrote; that is to say, in the thirteenth century: else he would not have omitted to mention them where he describes the method of rearing all domestic fowls, and even peacocks and partridges. The earliest account of them in Italy is contained in an ordinance issued by the magistrates of Venice, in 1557, for repressing luxury, and in which those tables at which they were allowed are particularised. About the year 1570 Bartolomeo Scappi, cook to Pope Pius V, gave in his book on cookery several receipts for dressing these expensive and much esteemed fowls. That they were scarce at this period appears from its being remarked that the first turkeys brought to Bologna were some that had been given as a present to the family of Buonocompagni, from which Gregory XII, who at that time filled the papal chair, was descended.

"That these fowls were not known in England in the beginning of the sixteenth century, is very probable; as they are not mentioned in the particular description of a grand entertainment given by the archbishop Nevil; nor in the regulations made by Henry VIII respecting his household, in which all fowls used in the royal kitchen are named. They were, however, introduced into that country about the above period; some say in the year 1524; others, in 1530; and some, in 1532....

"According to the account of some writers, turkeys must have been known much earlier in France: but in strict examination no proofs of this can be found. The earliest period assigned for their introduction into that country is given by Beguillet, who confidently asserts that they were brought to Dijon under the reign of Philip the Bold, about the year 1385.... De la Mare also is in an error when he relates that the first turkeys in France were those which Jaques Coeur, the well-known treasurer to Charles VII, brought with him from the Levant, and kept on his estate in Gatinois, after he had received the king's permission to return to the Kingdom. (before 1450 or 1456).... Equally false is the account given by Bouche in his History of Provence, that Rene, or Renatus. king of Naples and duke of Anjou, first brought turkeys into the kingdom, and reared them in abundance at Rosset.... The assertion, often repeated, but never indeed proved, that they were first brought to France by Philip de Chabot, admiral under Francis I, is much more probable. Chabot died in 1543; and what Scaliger says, that in 1540 some turkeys were still remaining in France, may be considered as alluding to the above circumstance. This much however is certain, that Gyllius, who died in 1555, gave soon after the first scientific description of them, which has been inserted both by Gesner and Aldrovandus in their works on orni-The same year the first figure of them was published by thology. Belon. About the same time they were described also by La Bruvere-Champier, who expressly remarks that they had a few years before been brought to France from the Indian islands discovered by the Portuguese and the Spaniards. How then could Barrington assert that this Frenchman meant the East and not the West Indies! They must, however, have been a long time scarce in France; for, in the year 1566, when Charles IX passed through Amiens, the magistrates of that place did not disdain to send him, among other presents, twelve turkeys. This information seems to agree with the account often quoted, that the first turkeys were served up, as a great rarity, at the wedding dinner of that monarch in the year 1570: but it seems the breed of these fowls was not very common under Charles IX; for they are not named in the ordinances of 1563 and 1567, in which all other fowls are mentioned. In the year 1603, Henry IV caused higglers to be punished who carried away turkeys from the country villages without paying for them, under a pretence that they were for the use of the queen. I shall here also remark, that I can no where find that the Jesuits are entitled to the merit of having introduced these fowls into France.

"As these American fowls must have been carried to Germany through other lands, we cannot expect to find them in that country at an earlier period. Gesner, who published his Ornithology in 1555, seems not even to have seen them. We are, however, assured by several authors, such as B. Heresbach (1595), Colerus (1611) and others, that turkeys were brought to Germany so early as 1530; and in the same year carried to Bohemia and Silesia. Respecting the northern countries, I know only, on the authority of Pontoppidan (1765), that they had been in Denmark two hundred years before his time.

"As these fowls are found at present both in Asia and Africa, it may be worth while to inquire at what period they were carried thither, especially as these quarters of the world have been by some considered as their native countries. In China there are no other turkeys than those which have been introduced from other parts, as we are expressly assured by Du Halde, though he erroneously adds that they were quite common in the East Indies. They were carried to Persia by the Armenians and other trading people, and to Batavia by the Dutch. In the time of Chardin they were so scarce in Persia that they were kept in the Emperor's menagerie. In the kingdom of Congo, on the Gold Coast, and at Senegal, there are none but those belonging to the European factories."

In addition to these accounts of its introduction into England and on the European continent, it might be apropos to present the very interesting hypothesis suggested by a naturalist of this continent, Prof. Baird. In 1858, he advances the following:¹

"In conclusion I venture to suggest the following hypothesis. which, however, is not original with myself: That there are really three species of turkey, besides the *M. ocellata*, a fourth species from Central America, entirely different from the rest. That one of them, M. americana, is, probably, peculiar to the eastern half of North America; another, M. mexicana, belongs to Mexico, and extends along the table lands to the Rocky Mountains, the Gila, and the Llano estacado, and a third is the M. gallopavo, or domesticated bird. That it is not at all improbable that the last was originally indigenous to some one or more of the West India islands, whence it was transported as tamed to Mexico and other parts of America, and from Mexico taken to Europe about A. D. 1520. Finally, that the wild turkeys were probably completely exterminated by the natives, as has been the case with equally large birds in other islands, as the dodo and solitaire.

¹ Baird, S. F. Rept. Pacific R. R. Routes, Vol. IX, 1858, Part II, pp. 613-618.

"This hypothesis will explain the fact of our meeting nowhere at the present day any wild turkeys resembling the domestic one. I have an indistinct recollection of a statement that our barnyard turkey came originally from Bermuda or Jamaica, but I cannot speak positively in regard to it.

"The entire subject is one of much interest, and deserves to be investigated thoroughly. It is quite possible that a careful examination of the external form and habits of the New Mexican bird may do much to throw full light on the whole question."

It is generally agreed that most of the domestic turkeys come from one or more of the Mexican forms (Meleagris g. intermedia, merriami), though the American (M. g. silvestris), Honduran (M. ocellata) and Floridan (M. g. osceola) forms may also have contributed. Other varieties of domestic nature may have arisen by recrossings of domestic breeds with the wild birds as has often been done to rejuvenate the stock. It is extremely unlikely that Baird's hypothesis of their origin from a West Indian form now extinct is tenable. Most of the early records of wild turkey in the West Indies are obviously of introduced forms. Oviedo's note of 1527 is of this nature, as is John Smith's note (1609) of a "store of turkees" in the Bermudas. In the latter region Richard Norwood asserts (1619) that "By this means (transportation) the Countrey was so replenished with Hennes and Turkeyes, within the space of three or foure yeeres, beeing neglected, many of them forsooke the Houses, and became wilde, and so lived in great abundance." In 1596, the Earl of Cumberland also finds in Porto Rico "some Turkies and Ginnyhens."

This theory of Prof. Baird postulates the former existence of a feral race of which no positive substantiating historical evidence is forthcoming. In the subsequent records, particularly from 1500–1600, possibly some additional light may be thrown on the question of introduction.

The Records from 1500-1600.

It seems best to reexamine some of the original sources of our early turkey history. The debatable evidence which may refer either to *Crax alector* and its allies or to *Meleagris* follows: Sebastian Munster records that Petrus Alonsus in a voyage along the Venezuelan coast (about 1498) from the Gulf of Paria westward.¹ "In their woodes,....saw innumerable Peacockes, nothing unlyke oures, saving that the males differ litle from the females." Of this same region (1516) Pietro Martire of Anghiera writes (in his Second Decade) that the natives gave to Vincentius Annez and his men"² a great multitude of thevr peacockes, both cockes and hennes, deade and alyve, as well to satisfie theyr present necessitie, as also to cary with theym into Spayne for encrease." "In the marysshes also and fennes of the Regions of Dariena, are founde greate plentie of Pheasaunts and peacockes, (but not of variable coloures)...., in the rase of this large lande, Colonus (Columbus) hymselfe brought and sent to the courte a greate number of every kynde the which it was lawfull for all the people to beholde, and are yet dayly browght in lyke maner." The Pedro de Cieza de Leon note, often quoted from Pennant, in the original is:³ "There are many turkeys..., on the island" - not on the Isthmus of Darien. but on the Island of Gorgona, southwest of Buena Ventura, Colombia. In the "Narrative of the Proceedings of Pedrarias Davilla etc. written by Adelantado Pascualde Andagoya" we find that in Coiba and Cueva (in S. A. below Darien)⁴ "they have no other game in these provinces excepting birds, of which there are two kinds of turkeys...." The translator, Sir. Clements R. Markham (1865) remarks in a footnote that "Turkeys are native of Mexico and do not come further south than Guatemala. The bird alluded to by Andagoya is probably a Curassow." In 1590, Father de Acosta publishes his "Natural and Moral History of the Indies."⁵ He "wondered at hennes, seeing there were some at the Indies before the Spaniards came there, the which is well approved, for they have a proper name of the country, and they call a henne Hualpa, and the egge Ronto, and they use the same

¹ Eden, Richard. The First Three English Books on America (1511?–1555) Edited by Edward Arber. Birmingham, Eng., 1885, p. 36.

² ibid., pp. 129, 132.

³ The Travels of Pedro de Cieza de Leon. A. D. 1532–1550. Translated by C. R. Markham, London, 1864, p. 21.

⁴ Translated and edited by Clements R. Markham. London, Hakluyt Soc., 1865, pp. 17, 18.

⁵ Acosta, Father Joseph de. The Natural and Moral History of the Indies. Seville, 1590. Reprinted from Eng. Translation of 1604, p. 276.

proverb wee doe, to call a coward a henne....: wee may conceive that a henne being so tame a fowle and so profitable, men might carry them with them when they passed from one place to another as we see at this day the Indians in their travel carry their henne with them or chicken, upon the burden they have on their shoulders: and likewise they carry them easily in their cages of reedes or wood."

These foregoing notes pertain to northern South American coasts and to the region from Darien southward. The average ornithologist would logically believe them applicable to curassows or guans, and no doubt this is the better interpretation. Still, the Wild Turkey was domesticated by the Aztecs before the discovery of America and it might have been distributed to the northern South American coasts and the West Indies by the Indian method described by Acosta. Furthermore, the Spanish introduction of the turkey into more interior provinces of South America may have been but an extension of the custom possibly begun about the Gulf of Mexico and the Caribbean Sea before the Spanish arrival. In this connection, the Inca G. de la Vega says,¹ "With the fowls and pigeons, that the Spaniards brought to Peru, came also the turkey of Mexico, which was not known before."

In the early days, as at later periods, the two types of bird were often confused and both were dubbed "Wild Turkey." As late as 1825, Schoolcraft writes,² "The Powhe or Crax alector of South America, which we have seen mounted in some of our museums under the name of 'Wild Turkey' is a bird belonging to a different genus in ornithology; and if alluded to, by the Scottish historian, (Robertson, Wm. The History of America) would have been mentioned by its popular name of *Indian hen.*"

We can now turn to the more certain records. According to Pietro Martire,³ Franciscus Fernandez of Corduba Lupus Ocho and Christophorus Morantes seek new lands west of Cuba and come to Yucatan on its northern coast (1517). Here they find the natives are "accustomed to eate fleshe, and have great plentie

¹ The Royal Commentaries of the Yncas. By Ynca Garcilasso de la Vega. Transl. and Edit. by C. R. Markham. Hakluyt Soc. 1871, Vol. II, p. 485. (Orig. 1609–1617.)

² Schoolcraft, H. R. Travels in the Central Portions of the Mississippi Valley. [Performed in 1821.] New York, 1825, p. 71.

^{*}Eden, Richard. p. 187.

of beastes and foules; as peacockes, and other whiche they francke and feede in their houses." In 1518, Grijalva visits Yucatan on its south coast and reports it ¹ "hath also great plentie of foules..." In 1519, Cortez ² send a side excursion to Yucatan and the natives bring "with them eight of their hennes beynge as bigge as peacockes, of brownyshe coloure, and not inferior to peacockes in pleasaunte tast." In his "Conquest of New Spain," Bernal Diaz del Castillo in writing of Montezuma's aviary mentions ³ "turkeys" among the "many sorts of birds and other things which are bred in this country." In his "Fifth Letter to Charles V," (1526) Cortez tells of coming suddenly on the natives who ⁴ "left behind many things, principally fowls,...," upon which they satisfy their hunger. And many writers have since held that Cortez must have sent turkeys among his numerous presents to his majesty.

Lopez de Gomara, in 1553, speaks of the turkey and holds that ⁵ "the gallipavo, of all the birds of New Spain, is the best for food. It is called this (gallipavo) on account of its resemblance in shape to the peacock (pavon) and to the domestic fowl (gallo). Thev are able to make the barb or wen on the head pass through considerable range of coloration." In his Historia de las Indias" he enumerates 6 "gallipavos" among the animals of Yucatan. Purchas, in his excerpts from Gomara's "Larger Relations of Mexico" gives us the following regarding Montezuma's aviary and menagerie:⁷ "There were also other Cages for foule of rapine of all sorts, as Hawkes, Kites.... This house of foule had of daily allowance of five hundred Gynea cockes, " "In the lower Halles were great Cages made of timber: in some of them were Lions, in others Tigres, in other Ounces,.... They were fed with their ordinary, as Ginea cockes, Deere...." In "The Voyage of Robert Tomson into Nova Hispania in the yeere 1555, etc." we find 8 "as for victuals

¹ ibid., p. 188.

² ibid., p. 193.

³ Hakluyt Soc., Sec. Ser. XXIV, 1910, Vol. II, p. 61.

⁴ Hakluyt Soc., 1868, p. 80.

⁵ Gomara, Francisco Lopez de. Hist de Mexico, 1553, p. 343.

⁶ — , — Biblioteca de Autores Espanoles. Historiadores Primitivos de Indias. Tome Primero. Madrid, 1858, p. 181.

⁷ Purchas His Pilgrimes. Vol. XV. Glasgow, 1906, pp. 536, 535.

⁸Hakluyt, Richard. Principal Navigation, etc. Hakl. Soc. Glasgow, 1904, Vol. IX, pp. 357, 342.

in the Said Citie (Mexico),....quailes, Guiny-cockes, and such like, all are very good cheape." Also in St. Domingo, "they have a good store of Guiny cocks and Guinyhens." In "a relation of the commodities of Nova Hispania" Henry Hawks, 1572 holds¹ "This city (Mexico) is very well provided....with....victuals, as....Guiny-cocks and hennes...." In the "History of the New World," Girolama Benzoni of Milan writes² "Two things are produced in this country which are not found elsewhere in India, except in the territories of *Guatimala*, of cape *Fonduri*, and *Mexico* and along the shores of *New Spain*. One is a species of peacock that has been brought to Europe, and commonly called the Indian fowls." In a footnote appears the following comment: "We call them *turkeys*; but in Italy they are still distinguished as galli d'India."

Eighteen years after the completion (1521) of the conquest of Mexico, explorations in northern Mexico and southwestern United States become pronounced. Purchas in "The Voyage of Frier Marco de Nica... into New Mexico and the adjoining lands, 1539-1595" says,³ they "have....; great Guinee Cockes"; "A Letter of Francis Vazquez de Coronado....1539" remarks,4 "the great store of Hennes of the Countrey." A relation (1540) of the same gentleman says,⁵ "Wee founde heere Guinie cockes but fewe. The Indians tell mee in all these seven cities, that they eate them not. but that they keepe them onely for their feathers. I believe them not, for they are excellent good, and greater then those of Mexico." Of this same journey, Winship's translation gives more pertinent notes. Near Bernalillo,⁶ "They (Indians) made a present of a large number of (turkey) cocks with very big wattles, etc." Again, "there are a great many native fowl in these provinces (among Tigeux Indians especially) and cocks with great hanging chins. When dead, these keep for sixty days, and longer in winter, without

¹ Hakluyt, R. Vol. IX, p. 380.

² Benzoni, G. Venice, 1572. Transl. W. H. Smith. Hakl. Soc. London, 1858, p. 148, 149.

³ Hakluytus Posthumus or Purchas His Pilgrimes. Glasgow, 1905–1907. Hakl. Soc., Extra Series. Vol. XVIII, p. 54.

⁴ Hakluyt, R. IX, p. 119.

⁵ Ibid., p. 156.

⁶ Winship, G. P. The Journey of Coronado 1540-1542. New York, 1904, pp. 40, 90, 99, 100, 153, 200.

losing their feathers or opening and without any bad smell." In another place we find the observation, "There are many fowls in the country tame." Also, in Cibola, "For foo they have.... some fowls, like those of Mexico, and they keep these more for their feathers than to eat, because they make long robes of them, since they do not have cotton." One other record for the same region comes forty years later, 1581–1583. The natives receive the travellers ¹ "very courteously, and (bring) them to their townes, where....they (give) them....hennes of the countrey,..."

In Florida, De Soto in 1539 reports that ² "They say, that there is to be found in it a great plenty of all the things mentioned, and fowles, guanojos* in yards,...." In the 1854 translation, Buckingham Smith gives "guanojos" as "Turkeys, in the language spoken by the natives of the Yucayo Islands."

In 1562, Captain John Ribault finds that ³ "As we passed thorow these woods (River of Port Royal) we saw nothing but Turkey cocks flying in the Forrests,...." In 1564, Laudonniere records that ⁴ "In this meane space the Indians visited me, and brought me dayly certaine presents, as Fish, Deere, Turki-cocks...." In 1586, Nicholas Burgoignon says ⁵ that they have there great store of Turkie cocks,...." The following year, 1587, "The description of the West Indies,...." relates of Florida that "The foules are Turkey-cocks,...." and that the Indians in the winter time feed on them as well as deer, fish and oysters. The same year 1587 in the same work ⁶ there appears a repetition of the Ribault note with the addition that these turkeys were in woods of oaks, cedars, and Lentiskes.

In 1601 Antonio de Herrara begins the publication of his 8 decades on "The General History of the Vast Continent and Islands of America, commonly called The West Indies." It treats of the period from 1492–1554; and in several places, he alludes to the turkey. Of Griljalva in Yucatan, he says ⁷ "They (Indians)

¹ Hakluyt, R. Vol. IX, p. 194.

² Letter of Hernando de Soto in Florida etc. July 9, 1539, Washington, 1854, p. 9.

⁸ Hakluyt, R. Vol. VIII, p. 461.

⁴ Ibid., IX, p. 49.

⁵ Ibid., IX, p. 114.

⁶ Ibis, VIII, pp. 451, 456, 461.

⁷ Herrara, Antonio de. 1725-1726 London, 3 vols. Translation by Capt. John Stevens, Vol. 2, pp. 126, 349, Vol. 3, p. 353; Vol. 4, pp. 19, 142.

immediately (sent to him) thirty Indians loaded with roast Fish, Hens,...." Concerning Montezuma's Aviary and Gardens, he asserts that "they (wild beasts) were fed with Turkeys, Deer..." Of the province of Tabasco, Mexico, he writes, "This country abounds in Turkies." Also of Yucatan, we find much the same assertion. "This country always abounded in Game, especially in Deer and wild Boars, and therefore the *Indians* call'd it *Ulunuluyz yetelzed*, that is Land of Deer and Turkey." In his last note of this form, he relates a custom of Honduras and Ybueras, "theykept the shells of Turkey Eggs that were hatch'd alledging, that if they were thrown away the Pouts would dye."

The first description of the Turkey is usually credited to Gonzalo Fernandez de Oviedo y de Valdes, who was at Darien from 1514– 1517, 1519–1523, later at Cartagena, and in 1535 at Santo Domingo. He wrote "Historia natural y general de las Indias" in 50 books. The first volume (19 books) of this work was published at Seville in 1535, and a brief extract of his Sumario de la Natural Historia de la Indias appeared at Toledo in 1527. Most of the English translations apparently are of this 1527 extract which probably has not the turkey account. He treats both Curassows and Turkeys as Pavos (Peafowls).¹

"There are some peafowls reddish (ruby) and others black, and the tails have the shape of the peahens of Spain; but in plumage and in color, some are entirely reddish (ruby), and the abdomen with a little of the breast white, and the others entirely black, and in the same manner the abdomen and part of the breast white; and both have upon the head a beautiful crest or tuft, of red feathers for the red ones, and black for the black ones, and they are better to eat than those of Spain. These peafowls are wild, and some are domesticated in the houses when they are taken young. The archers kill many of them because they are in great number. Some say that the pea-cock is red and the pea-hen black; others are of contrary opinion, and say that the pea-cock is black and the pea-hen reddish (ruby); others say that they are of two kinds (géneros) and that the male and female are of both colors and of

¹ Biblioteca de Autores Espanoles, etc. Historiadores Primitivos de Indias. Tome Premero. Sumario de la Natural Historia de las Indias, Capitulo XXXVI, p. 493. This excerpt transl. by A. J. Lamoureux.

either of them. If the archer does not hit it in the head or in a part that kills the said peafowl, though it be struck in a wing or other part, it goes on the ground afoot and runs rapidly; and as it is necessary that the archer have a good dog and quick, so that the hunter should not lose his labor and the game. One of these turkeys is valued a ducat, and sometimes a castellano or peso de oro (gold dollar), which is as much as it is to spend a *real* in Spain. Other peafowls larger and of better savor and more beautiful are found in New Spain (Mexico), of which many are carried to the islands (West Indies) and to Castilla del Oro (Darien), and they are bred domestically in the homes of the Christians; of these the females are plain and the males beautiful, and very often make a wheel (hacen de rueda), though they have not so great a tail nor so beautiful as those of Spain; but in all other respects as to their plumage they are very beautiful. They have the neck and head covered with a carnosity without feathers, which often changes to diverse colors, when it suits them, especially when they make the wheel it becomes very red, and when they stop making the turn sometimes vellow and other colors, and sometimes blackened. changing color dark and white, many times; and on its face above the beak the pea-cock has a short teat (pézoncorto), which when he makes the wheel is enlarged or grows more than a palm; and from the centre of the breast springs and is worn a lock of coarse hair as thick as a finger, and these hairs neither more or less than those of the tail of a horse, very black, and more than a palm long. The meat of these peafowls is very good, and incomparably better and more tender than that of the peafowl of Spain."

Another who has been frequently mentioned with Oviedo in the earlier turkey accounts is Franciscus Hernandez (Fernandez), whom Philip I sent to Mexico in 1570–1576. Only portions of his 16 folio work have appeared, and in 1651 (not between 1555– 1598, as Pennant supposed) there appeared the tract on birds. Concerning Huexolotl (Turkey), he writes, "This is the Indian Fowl, which some call the Gallipavo, and with which all are acquainted; they are to be found in woods, are twice as large as the domestic ones, more hardy, and more unsavory, but in other respects similar to them. Sometimes they are slain with arrows, and at other times with real warlike weapons. And then there are

the females, called in the above language Cihuatotolin, which are smaller than the males: and although most acceptable and wholesome food, they are nevertheless it would seem to our countrymen, too moist, excessively oily, and nauseous to some delicate palates." 1

In 1811, Alex. De Humboldt speaks of these last two authors and adds some interesting notes regarding the early history of the turkey of Mexico and the domestic one of Europe. He writes as follows:² "From Mexico, the Spaniards carried them into Peru, to Darien, and into the Antilles, where Oviedo described them in 1515. Hernandez has already very well observed that the wild turkey from Mexico are very much larger than the domestic turkies. At present, one only meets the wild ones in the northern provinces. They betake themselves to the north, as the population increases and as a necessary consequence when the forests become more rare.... When the English in 1584, arrived in Virginia, the turkeys already had existed fifty years in Spain, Italy, and England. This is not the first time this bird passed from the United States into Europe, as many naturalists have erroneously stated."

EARLY COMPARISONS OF THE FERAL AND DOMESTIC FORMS.

Early chroniclers, as we of the present, instinctively compare the wild form with the smaller domestic variety of the poultry yard; and the literature of North American travel is replete with such descriptions, some of which appear herewith because of their intrinsic interest and because of the sidelights they may throw on domestication and introduction into Europe.

In the French domains of North America, the Jesuits frequently note them. Allouez at Lake Poygan, Wisconsin (1669-70) says,³ "there we saw two Turkeys perched on a tree, male and female, resembling perfectly those of France — the same size, the same

¹ Hernandez, Francisco. Nova plantarum, animalium et mineralium Mexicanorum historia - Romae 1651. Tractus Secundus. Cap. LIX, p. 27.

² Humboldt, Al. De. Essai Politique Sur Le Royaume De La Nouvelle-Espagne. 5 vols. Paris, Tome Troisieme, Livre IV, Chap. X, pp. 233, 234.

³ Thwaites, R. G. The Jesuit Relations and Other Allied Documents. 1610-1791. Cleveland, 1896, Vol. LIV, p. 219.

color, and the same cry." Rasles in the Illinois country, 1723 records,¹ "we can hardly travel a league without meeting a prodigious multitude of Turkeys, which go in troops, sometimes to the number of 200. They are larger than those that are seen in France. I had the curiosity to weigh one of them, and it weighed thirty-six livres. They have a sort of hairy beard at the neck, which is half a foot long." Poisson at Bayogoulas on the Mississippi, 1727 writes that his host ² "neglected nothing for our comfort; he regaled us with wild turkey (these are very like domestic turkeys but they have a better flavor)."

In the southern English colonies, we have a similar set of observations. According to Fiske,³ "On that same voyage (Christopher Newport, carried home a coop of plump turkeys, the first that ever graced an English bill of fare."

Of the turkeys in Carolina John Lawson writes in 1714 as follows:⁴ "There are great flocks of these in Carolina. I have seen about five hundred in a flock; some of them are very large. I never weighed any myself, but have been informed of one that weighed near sixty pound weight. I have seen half a turkey feed eight hungry men two meals. Sometimes the wild breed with the tame ones, which they reckon makes them very hardy, as I believe it must. I see no manner of difference betwixt the wild turkies and the tame ones; only the wild are ever of one color, viz: a dark gray or brown, and are excellent food. They feed on acorns, huckleberries, and many other sorts of berries that Carolina affords. The eggs taken from the nest and hatched under a hen will yet retain a wild nature, and commonly leave you and run wild at last, and will never be got into a house to roost but always perch on some high tree hard by the house, and separate themselves from the tame sort, although, at the same time, they tread and breed together. I have been informed that if you take these wild eggs when just on the point of being hatched, and dip them (for some little time) in a bowl of milk-warm water, it will take off their

¹ Ibid., Vol. LXVII, p. 169.

² Ibid., Vol. LXVII, p. 297.

³ Fiske, John. Old Virginia and her Neighbors. Boston and New York, 1897, Vol. I, p. 122.

¹⁴ Lawson, John. The History of Carolina, etc. London, 1714. Reprint, Raleigh, N. C., 1860, pp. 244, 245.

wild nature and make them as tame and domestic as the others. Some Indians have brought these wild breed, hatched at home, to be a decoy to bring others near their cabins, which they have shot."

In 1735, Francis Moore finds in Georgia¹ "Of wild fowl kind, there are wild turkeys, though but few of them upon the island (St. Simons), but plenty upon the main. This bird is larger than the tame turkey, and the cock is the beautifullest of the feathered kind; his head has the red and blue of the turkey, only much more lively and beautiful, his neck is like the cock pheasant's, his feathers also are of the same color with those of that bird, glittering in the sun as if they were gilded; his tail is as large, though it hath not so fine eyes in it as the peacock's hath. At first, before they were disturbed by our people, they would strut in the woods as a peacock does. I have heard some say, that upon weighing, they have found them to exceed thirty pounds; I never weighed any, but have had them very fat and large; they are delicious meat and are compared to a tame turkey, as a pheasant is to a fowl."

In Pennsylvania, Kalm (October, 1748) observes that ² "The *Turkey Cocks* and *Hens* run about in the woods of this country, and differ in nothing from our tame ones, except in their superior size, and redder, though more palatable flesh. When their eggs are found in the wood, and put under tame *Turky* hens, the young ones become tame; however when they grow, it sometimes happens that they fly away; their wings are therefore commonly clipped, especially when young. But the tamed turkeys are commonly much more irascible, than those which are naturally tame. The Indians likewise employ themselves in taming and keeping them near their huts."

Shortly after the Revolution, the number of travellers in this country increases, and at the end of the eighteenth century and at the beginning of the nineteenth century, we have several pertinent notes. Among Bartram's numerous remarks on this species, we find that he when near Darian, on Altamaha River,³ "saw here a

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¹ Colls. Ga. Hist. Soc. Savannah, 1840, p. 117.

² Kalm, Peter. Travels into North America, etc. Translated by J. R. Forster. Vol. I, Warrington, 1770, p. 209.

³ Bartram, William. Travels through North and South Carolina, Georgia, East and West Florida. Phila. 1791, p. 14.

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remarkably large turkey of the native wild breed: his head was above three feet from the ground when he stood erect; he was a stately beautiful bird, of a very dark dusky brown colour, the tips of the feathers of his neck, breast, back and shoulders, edged with a copper colour, which in a certain exposure looked like burnished gold, and he seemed not insensible of the splendid appearance he made. He was reared from an egg, found in the forest, and hatched by a hen of the common domestic fowl.

"Our turkey of America is a very different species from the mileagris of Asia and Europe; they are nearly thrice their size and weight. I have seen several that have weighed between twenty and thirty pounds, and some have been killed that weighed near forty. They are taller, and have a much longer neck proportionally and likewise longer legs, and stand more erect; they are also very different in colour. Our's are all, male and female, of a dark brown colour, not having a black feather on them; but the male exceedingly splendid, with changeable colours. In other particulars they differ not."

The following year, 1792, Belknap in speaking of "Meleagris gallopavo" gives us the following: 1 "Dr. Goldsmith doubts whether any of this breed have been tamed in America. They certainly have been tamed; but they are degenerated in size by their domestication, scarcely any being more than half so heavy as those above mentioned. The turkey is a rambling bird, and runs with great speed on the ground. The tame flocks frequently wander, and cannot be fatted till the snow prevents their excursions." Priest three years later, 1795, holds the backwoodsmen and western settlers think² "The only bird....worthy of their attention is the wild turkey. An American naturalist (Bartram) says, 'Why do not the Americans domesticate this noble bird? They are much better adapted to bear this climate than the puny breed their ancestors imported from England. The few that are shot so far to the eastward as to be brought to our markets bear a great price.'"

¹Belknap, Jeremy. The History of New Hampshire. Boston, 1792, Vol. III, p. 170.

² Priest, Wm. Travels in the United States of America; commencing in the year 1793, and ending in 1797, etc. London, 1802, p. 90.

Vol. XXXI 1914 WRIGHT, Early Records of the Wild Turkey.

In connection with Heckewelder's journey to Wabash in 1792, his translator makes this note:¹ "Our tame European turkeys are descended from this wild species, which in the latter part of the 16th century had become known in Germany. They are found in large numbers in less inhabited regions, west of the middle free states. Schöpf saw them during his journey in great numbers running about in the woods, hiding in the brushes or setting on the limbs of trees. They distinguished themselves from the tame ones, by their uniformity of colors, being black, brown and muddy white spotted, they weigh 28-30 lbs." Parkinson, who travels in America in 1798-1800, in discussing the "Fowls of America" says,² "There are great numbers of turkeys reared; and very fine they are. There are likewise wild turkeys, which are something larger than the tame ones, but so like them, that I should be unable to distinguish the one from the other. They are black or rather brown, called copper colour." At the same time Michaux well known to American naturalists writes the following: ³ "To the east of the Mississippi, in a space more than eight hundred leagues, this is the only species of wild turkey which is met with. They are larger than those reared in our poultry-vards. In autumn and in winter they feed chiefly on chestnuts and acorns; and some of those killed at this season weigh thirty-five or forty pounds. The variety of domestic turkies, to which the name of English turkies is given, in France, came originally from this species of wild turkey: and when they are not crossed with the common species, they retain the primitive colour of their plumage, as well as that of their legs, which is a deep red. If, subsequent to 1525, our domestic Turkies were naturalized in Spain, and from thence introduced into the rest of Europe it is probable that they were originally from some of the more southern parts of America where there doubtless exists a species different from that of the United States."

In 1806, Priscilla Wakefield's "Excursions in America" appears. When at Sunbury below Savannah, the traveller comments on

¹ Penn. Mag. Hist. and Biog. Vol. XII, p. 166.

² Parkinson, Richard. A Tour in America in 1798, 1799 and 1800. London, 1805, Vol. I, pp. 299, 115.

³ Michaux, F. A. Travels to the Westward of the Alleghany Mountains, in the States of Ohio, Kentucky and Tennessee, etc. undertaken in 1802.... Transl. by B. Lambert. London, 1805, pp. 217, 218.

the prodigious size of wild turkeys.¹ "I saw one, that had been hatched from an egg found in the forest: he was a noble, majestic bird, at least a yard high, when he stood upright; his colour was dark dusky brown: but the feathers of the neck, breast, back and shoulder, were tipped with copper colour, which in the sun looked like burnished gold. The American turkeys are twice as large as those we have in England, particularly as to height as their necks and legs are longer in proportion. Both the cock and the hen are brown, not having a black feather on them; but the cock is beautifully adorned with variable shades, as I have already mentioned." In 1810 Christian Schultz finds them common at the mouth of the Ohio. He writes,² "I likewise saw several broods of wild turkey, produced in a similar way: these are procured by placing the eggs, which are frequently found in the woods, under a hen or a tame turkey, and the brood become as much attached to the barnyard as if they had a claim to it by hereditary right. I shot several dozens of wild turkeys in descending the river, but could never discover the least difference betwixt them and those we have domesticated. They can scarcely be denominated wild, as we frequently passed within thirty yards of flocks which were drinking by the river, without their showing the least signs of alarm." At the Chickasaw bluff on the Mississippi River, Monteile (June 2, 1817) shoots a very fine wild turkey which proves excellent eating.³ "Its fat was not confined to a particular part, as with our domesticated turkeys, but spread throughout the flesh, which renders it much more savoury; they are the same size as the latter, but more active. We had often seen them upon the banks, surrounded by eight or ten young ones; but on approaching, they fled to the forest: all of them appeared to be of a dark brown colour."

The famous Schoolcraft (1821) in his "Travels in the Central Portions of the Mississippi Valley" (N. Y., 1825, p. 71) remarks that "With regard to the (turkey), an opinion has been advanced,

¹Wakefield, Priscilla. Excursions in North America,.... London, 1806, pp. 84-87.

² Schultz, Christian. Travels on an Inland Voyage through the States of New York, Pennsylvania, Virginia, Ohio, Kentucky and Tennessee, New York, 2 vols., 1810, Vol. II, p. 19.

³ Monteile, E. A Voyage to North America, and the West Indies, in 1817. London, 1821, p. 73.

that it is not indigenous to our country; but the assertion of Robertson on this subject, that this bird was one of those which Cortes found in a state of domestication. on his arrival in Mexico. would, it should seem, put to rest all dispute on this point.... The gallipavo is, in fact, a bird peculiar to North America, and is found as a wild-fowl throughout all our forests, from Mexico to the Northern Lakes, without any material variation in its specific marks. It was unknown to the ancient writers on natural history, and unknown in Europe, before the discovery of America. Authors inform us that it was first seen in France, in the reign of Francis I. and in England, in the reign of Henry VIII. By comparing the epochs of these sovereigns it appears evident, that the first turkeys must have been brought from Mexico, the conquest of which was completed, A. D. 1521 - three hundred years antecendent to the date of the present remarks." The following year, 1822-23, William H. Blane, an English gentleman when a ¹ "few miles from the village of Hancock (Md),.... put up a large 'gang' of wild turkies that was crossing the road. These birds, which I afterwards saw an immense number of in the Western States, are much larger and handsomer, as well as of a more stately gait, than tame turkies. Their colour is the same as that of the breed which we call the dark Norfolk. Their plumage is particularly fine, and has a beautiful gloss, very much resembling that of an English starling, and which immediately distinguishes them from the domestic varieties, even when dead. I may here mention that the turkey originally came from America, and was unknown to the ancients. Indeed it is now generally allowed by naturalists, that the Meleagrides of the Romans were Guinea Fowls."

In 1832, Flint writes of ² "The wild turkey (as) a fine, large bird, of brilliant blackish plumage. It breeds with the domestic one; and when the latter is reared near the range of the former, it is sure to be enticed into the woods by it. In some places they are so numerous, as to be easily killed, beyond the wants of the people! We have seen more than a hundred driven from one

¹ An Excursion through the United States and Canada during the years 1822–23 by an English Gentleman (William H. Blane) London, 1804, p. 85.

² Flint, Timothy. The History and Geography of the Mississippi Valley. Two vols. (in one). Cincinnati, 1832. Vol. I, p. 73.

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cornfield." About this same time, James Stuart in a journey from Montgomery to Mobile finds the ¹ "wild turkey abounds in these (Chattahoochee River) woods, and when fat is an excellent bird: but as the wild turkeys are shot indiscriminately, they are often brought to table when they have not been sufficiently fed. I was always better pleased to see the tame than the wild turkey on the table." Finally, concerning the tame form, Zadock Thompson says in 1842, that ² "The Domestic Turkey sprung from this species, and was sent from Mexico to Spain in the 16th century. It was introduced into England in 1524, and into France and other parts of Europe about the same time."

OSTEOLOGY OF THE PASSENGER PIGEON (ECTO-PISTES MIGRATORIUS).

BY DR. R. W. SHUFELDT.

Plate XXXIV.

As far as I have been able to ascertain, there appears to be but one living specimen of *Ectopistes migratorius* in North America, and that one is a captive at the Zoölogical Garden of Cincinnati, Ohio, where, at the present writing, Mr. Stephan writes me it is doing well. When it dies, the species will be utterly extinct in this country, where formerly it existed in enormous flocks, often numbering many millions. Personally, I have witnessed but one flight of this pigeon, and that was early in the 70's at New Canaan, Connecticut, the second day of which I shot about fifty birds.

There has been no complete account published of the osteology of this bird, and certainly no good figures of its skeleton, though I

¹ Stuart, James. Three Years in North America. Edinburgh, 1833, Vol. II, p. 214.

² Thompson, Zadock. History of Vermont. Natural, Civil and Statistical. Burlington, p. 101.