

DOCKYARD.	LENGTH from Ridge of Caisson or Nitre Post of Gates (Blocks taken at 3 ft. high).		BREADTH		DEPTH ON SILL				Depth of Dock Floor below Sill.	Caisson or Gates.	REMARKS.
	At Coping.	On Blocks.	At Coping.	On Floor at Stern.	ft. in.	H.W. O.S.T.		From Coping.			
						ft. in.	ft. in.				
<b>CHATHAM.</b>											
No. 1 Dock	225	0 203 5	73	11 46 0	57	5	16	0	22	0	Gates
" 2 "	408	5 384 9	85	2 30 0	65	0	23	6	20	6	Caisson
" 3 "	363	6 336 6	90	0 26 0	63	5	23	6	20	6	level
" 4 "	253	0 232 0	80	0 44 0	62	8	21	0	18	0	do.
" 5 "	456	3 416 0	108	0 42 6	80	0	31	6	23	6	do.
" 6 "	456	3 416 0	108	0 42 6	82	0	32	0	29	0	do.
" 7 "	457	3 416 0	110	0 42 6	82	0	32	0	29	0	do.
" 8 "	457	3 416 0	110	0 42 6	82	0	32	0	29	0	do.
North Lock	477	6 436 0	95	0 85 0	94	6	33	6	30	6	do.
South " L	479	6 438 0	85	0 75 0	94	6	32	6	29	0	do.
Basin Entrance A	—	—	—	—	79	7 1/2	30	0	27	0	do.
" B	—	—	—	—	84	0	32	0	29	0	do.
" C	—	—	—	—	84	0	32	0	29	0	do.
<b>PORTSMOUTH.</b>											
No. 1 Dock	253	6 228 3	92	7 39 1	57	7	19	6	17	0	Gates
" 2 "	252	10 221 6	88	6 24 6	63	4	24	0	21	6	do.
" 3 "	287	1 275 2	91	6 23 1	67	6	25	6	23	6	Caisson
" 4 "	283	3 279 3	85	5 32 9	67	6	25	6	23	6	do.
" 5 "	230	4 209 4	85	1 33 9	55	4	20	0	17	6	Gates
" 6 "	220	1 189 8	83	9 35 0	52	11	19	0	16	6	do.
" 7 "	100	0 35 0	80	5 27 0	80	5	27	0	24	6	Caisson
" 10 "	858	1 648 8	100	0 35 0	88	6	27	0	24	6	do.
" 11 "	340	0 307 0	80	4 32 9	70	0	22	9	20	3	do.
" 12 "	304	6 208 0	88	0 36 0	64	11	21	9	19	3	do.
" 13 "	427	0 401 6	99	0 35 0	70	0	27	0	24	6	do.
" 14 "	456	0 415 0	110	0 42 6	80	0	32	6	30	0	do.
" 15 "	456	0 416 0	110	0 42 6	82	0	33	0	30	6	do.
Deep Dock D	452	0 428 0	101	6 40 6	82	0	40	8	33	6	do.
North Lock	466	0 458 0	100	0 42 6	82	0	41	8	33	6	do.
South " C	468	0 458 0	100	0 40 8	80	0	40	8	33	6	do.
Basin Entrance A	—	—	—	—	80	0	32	6	30	0	do.
" L	—	—	—	—	80	0	32	6	30	0	do.
" M	—	—	—	—	94	0	32	6	30	0	do.
" N	—	—	—	—	80	0	32	6	30	0	do.
Steam Basin Entrance O	—	—	—	—	78	10 1/2	28	6	25	6	do.
Ship " "	—	—	—	—	67	0	26	0	23	6	do.
<b>SHEERNESS.</b>											
No. 1 Dock	253	8 241 2 1/2	89	5 26 3 1/2	57	7	25	2	20	8	Caisson & Gates
" 2 "	251	10 225 7	90	5 26 3 1/2	57	8	25	2	20	8	Gates
" 3 "	280	8 238 6	90	2 26 3	63	5	25	8	21	2	Caisson
" 4 "	502	6 177 3	75	10 38 8	60	3	19	10	15	4	Gates
" 5 "	158	11 176 0	64	4 45 4	63	7	14	8	10	2	do.
Small Basin Ent. (Tidal)	—	—	—	—	60	0	20	6	18	0	Swing Bridge
Great " "	—	—	—	—	64	8	25	8	21	2	Caisson
Boat " (Tidal)	—	—	—	—	100	0	19	10	15	4	Nil
<b>DEVONPORT.</b>											
No. 1 Dock (Basin)	305	6 303 6	95	9 38 6	65	0	27	10	2	4	Gates
" 2 " (New Long)	437	0 415 0 1/2	97	0 29 9	73	0	32	1	27	7	do.
" 4 " (North)	273	7 263 4	96	0 34 0	64	8	21	6 1/2	17	0 1/2	do.
Basin Entrance	—	—	—	—	81	5 1/2	31	4 1/2	26	10	Nil
New Dry Dock (begun 1877 on site of No. 3)	380	0 359 6	95	0 50 0	94	0	35	2	30	8	Caisson
<b>KEYHAM.</b>											
No. 1 Dock (South)	358	9 347 2	94	2 30 0	80	0	26	0	21	6	Caisson
" 2 " (Middle)	311	0 295 9	92	0 30 1	80	0	27	0	18	6	do.
" 3 " (Queen's)	421	4 417 4	98	8 30 0 1/2	80	0	27	0	22	6	do.
Entrance Lock	253	0 253 0	80	0 33 3	80	0	34	0	29	6	do.
" to N. Basin	—	—	—	—	80	0	34	0	29	6	do.
" between Basins	—	—	—	—	80	0	27	0	22	6	do.
<b>FEMBRIDGE.</b>											
No. 1 Dock	404	0 387 8	91	5 26 4	75	0	22	11	16	11	Caisson
<b>HAULBOWLINE.</b>											
No. 1 Dock	455	0 414 0	110	6 48 6	94	0	32	8	30	0	Caisson
Basin Entrance	—	—	—	—	94	0	32	8	30	0	do.
<b>WOOLWICH.</b>											
No. 1 Dock	276	9 250 0	80	4 32 5	65	0	22	3	17	6	Gates
" 2 "	273	4 241 3	91	6 38 11	65	0	21	1	16	4	Caisson
" 3 "	288	0 282 2	92	4 40 5	80	0	21	1	16	4	do.
Inner Basin Entrance	—	—	—	—	68	0	21	0	16	3	do.
Outer " "	—	—	—	—	65	0	22	10	18	1	do.
<b>MALTA.</b>											
Outer Dock } Double	256	1 256 1	82	1 26 9	51	4 1/2	25	0	Average	W. Line	Caisson
Inner " } Dock	300	0 289 0	89	6 33 4 1/2	73	2	29	7	29	7	do.
Somerset Dock	468	0 427 8	104	0 42 6	80	0	33	6	30	0	do.
<b>BERMUDA.</b>											
Floating Dock	381	0 333 0	83	9 123 9	83	9	74	5	54	5	Caissons

DOCTOR, denoting etymologically a teacher, is the title conferred by the highest university degree. Originally there were only two steps in graduation, those of bachelor and master, and the title doctor was given to certain masters as an alternative or as a merely honorary appellation. It is in this sense that the word is to be understood in the phrase *Doctor Angelicus* applied to Aquinas, and in many other familiar instances of a similar kind. The process by which the doctorate became established as a third degree, distinct from and superior to that of master, cannot be very clearly traced. At Bologna it seems to have been conferred in the faculty of law as early as the 12th century, but there is no sufficient authority for the statement commonly made that the celebrated Irnerius drew up the formulary for the ceremonial, and that Bulgarus was the first who took the degree. Paris, the other great university of the Middle Ages, conferred the degree in the faculty of divinity, according to Antony Wood, some time after 1150, the earliest recipients being Peter Lombard and Gilbert de la Portree. In England the degree was introduced in the reign of John or of Henry III. Both in England and on the Continent it was confined for a considerable period to the faculties of law and divinity; it was not until the 14th century that it began to be conferred in medicine, and in England it is still unknown in the faculty of arts. In Germany, however, there is a degree of doctor of philosophy. The doctorate of music was first conferred at Oxford and Cambridge; its use in Germany is comparatively recent. See UNIVERSITIES.

DOCTORS' COMMONS was a society of ecclesiastical lawyers in London, forming a distinct profession for the practice of the civil and canon laws. Some members of the profession purchased in 1567 a site near St Paul's, on which at their own expense they erected houses for the residence of the judges and advocates, and proper buildings for holding the ecclesiastical and admiralty courts. "In the year 1768 a royal charter was obtained by virtue of which the then members of the society and their successors were incorporated under the name and title of 'The College of Doctors of Law exercent in the Ecclesiastical and Admiralty Courts.' The college consists of a president (the dean of Arches for the time being) and of those doctors of law who, having regularly taken that degree in either of the universities of Oxford or Cambridge, and having been admitted advocates in pursuance of the rescript of the archbishop of Canterbury, shall have been elected fellows in the manner prescribed by the charter." The judges of the archiepiscopal courts were always selected from this college. By 20 and 21 Vict. c. 77 (the Act to amend the law relating to Probate and Letters of Administration) § 116 and 117, the college is empowered to sell its real and personal estate and to surrender its charter to Her Majesty, and it is enacted that on such surrender the college shall be dissolved and the property thereof shall belong to the then existing members as tenants in common for their own use and benefit. In pursuance of this enactment the college has been dissolved and the ecclesiastical courts are now open to the whole bar.

DOCTRINAIRE, the name applied by its opponents to a small but very influential political party in France which made itself prominent after the restoration of the Bourbons in 1815. The doctrine or fundamental principle on which its action was based was that the sole justification of any form of government was the manner in which it exercised its power. Rejecting the claim of divine right, whether urged for monarchy or for republicanism, the doctrinaires were opposed alike to the ultra-royalists and to the revolutionists. In the chamber they occupied the left centre, and thus marked themselves out from the centre or ministerialist and the left or opposition party.

While maintaining the re-established dynasty their efforts were mainly directed towards moulding the constitution into a shape resembling as nearly as possible that of England. The leaders of the doctrinaires were Royer-Collard, the Duc de Broglie, and Guizot. After the revolution of 1830 several of them came into power and proved strong supporters of constitutional monarchy on the model that has existed in England since the reign of William. The name doctrinaires fell entirely out of use after 1848, but the principles of the party have been faithfully represented since that date by the Orleanists. See FRANCE.

DODD, DR WILLIAM (1729-1777), an unfortunate English divine, eldest son of the Rev. William Dodd, many years vicar of Bourne, in Lincolnshire was born there in May 1729. He was sent, at the age of sixteen, to the university of Cambridge, where he was admitted a sizar of Clare Hall in 1745. He took the degree of B.A. in 1750, being in the list of wranglers. On leaving the university, he married a young woman of the name of Perkins, the daughter of a verger. She had a more than questionable reputation, and her extravagant habits contributed in no small degree to her husband's disgrace and ruin. In 1751 he was ordained deacon, and in 1753 priest, and he soon became a popular and celebrated preacher. His first preferment was the lectureship of West-Ham and Bow. In 1754 he was also chosen lecturer of St Olave's, Hart Street; and in 1757 he took the degree of M.A. at Cambridge. He was a strenuous supporter of the Magdalen Hospital, which was founded in 1758, and soon afterwards became preacher at the chapel of that charity. In 1763 he obtained a prebend at Brecon, and in the same year he was appointed one of the king's chaplains,—soon after which the education of Philip Stanhope, afterwards earl of Chesterfield, was committed to his care. In 1766 he went to Cambridge, and took the degree of LL.D. At this period he was held in high estimation; but eager for further advancement, he unhappily entered on courses which in the end proved the occasion of his ruin. On the living of St George's, Hanover Square, becoming vacant, he wrote an anonymous letter to the wife of the lord chancellor offering three thousand guineas if, by her assistance, he was promoted to the benefice. This letter having been traced to him, a complaint was immediately made to the king, and he was dismissed with disgrace from his office of chaplain. After residing for some time at Geneva and Paris, he returned to England in 1776. He still continued to exercise his clerical functions, but his extravagant mode of life soon involved him in difficulties. To meet the demands of his creditors he forged a bond on his former pupil Lord Chesterfield for £4200, and actually received the money. But he was detected, committed to prison, tried at the Old Bailey, found guilty, and sentenced to death; and, in spite of numerous applications for mercy, he was executed at Tyburn on the 27th June 1777.

Dr Samuel Johnson was very zealous in pleading for a pardon, and a petition from the city of London received 23,000 signatures. Dr Dodd was a voluminous writer, and possessed considerable abilities, with but little judgment and much vanity. His *Beauties of Shakespeare*, published before he entered the church, was long a well-known work; and his *Thoughts in Prison*, a poem in blank verse, written in the interval between his conviction and his execution, naturally attracted much attention. He published a large number of sermons and other theological works. An accurate list of his various writings is prefixed to his *Thoughts in Prison*.

DODDER (Frisian *dodd*, a bunch; Dutch *dot*, ravelled thread), the popular name of the annual leafless twining



epiphytic plants forming the genus *Cuscuta* and natural order *Cuscutaceae* or, according to some botanists, the tribe *Cuscutae* of the *Convolvulaceae*. All the species are natives of temperate regions, and all have strong acrid properties. The flowers, which grow in clusters, have a quinque-partite, coloured calyx; scales alternating with the corolline lobes; carpels forming a syncarpous ovary; the albumen of the seeds fleshy; and the embryo spiral, filiform, and acotyledonous. On coming in contact with the living stem of some other plant the seedling dodder throws out a sucker, by which it attaches itself and commences to absorb the sap of its foster-parent; it then soon ceases to have any connection with the ground. As it grows, it throws out fresh suckers, establishing itself firmly on its victim. After making a few turns round one stem the dodder finds its way to another, and thus it continues twining and branching till it resembles "fine, closely-tangled, wet catgut." The injury done to flax, clover, hop, and bean crops by species of dodder is often very great. *C. europaea*, the Greater Dodder, is found parasitic on nettles, thistles, vetches, and the hop; *C. Epilinum*, on flax; *C. Epithymum*, on furze, ling, and thyme. *C. Trifolii*, the Clover Dodder, is perhaps a sub-species of the last-mentioned. For a figure of *C. verrucosa*, the Warty Dodder, see vol. iv. pl. x.

DODDRIDGE, PHILIP (1702-1751), a celebrated nonconformist divine, was born in 1702. His father, Daniel Doddridge, was a London merchant, and his mother the orphan daughter of the Rev. John Bauman, a Bohemian clergyman who had fled to England to escape religious persecution, and had held for some time the mastership of the grammar school at Kingston-upon-Thames. He was the youngest of a family of twenty, of whom there was at his birth only one other child, a daughter, surviving. It is also remarkable that he himself at his birth was put aside as actually dead, and was only preserved alive owing to the accidental glance of one of the attendants, who fancied she perceived a feeble heaving of the infant's chest, and was successful in kindling the almost extinguished vital spark. Before he could read, his mother taught him the history of the Old and New Testament by the assistance of some blue Dutch tiles; and these stories, he says, were the means of enforcing such good impressions on his heart as never afterwards wore out. When sufficiently old to leave the paternal roof he was placed under the tuition of the Rev. Mr Scott, who taught a private school in London, and on attaining his tenth year he was sent to the grammar school at Kingston-upon-Thames. About 1715 he was removed to a private school at St Albans, where he began to keep an exact account of his time in order the better to improve himself by private meditation and study, and was in the habit during his walks of entering the neighbouring cottages to read to the inmates a few pages from the Bible or from some religious book. Through the interest of friends a proposal was made to him, in 1719, which would have enabled him to enter the English bar; but receiving at the same time an invitation to study for the ministry, he preferred the latter, and shortly thereafter removed to the academy for dissenters at Kibworth in Leicestershire, taught at that time by the Rev. John Jennings. Mr Jennings having in 1722 received an invitation to Hinckley, the academy was removed thither; and in 1723 Doddridge, having finished his studies, accepted an invitation to succeed him in the ministry at Kibworth. He had also been mentioned by Jennings, who died in 1723, as the person most fitted to extend his plans and views as an instructor of candidates for the ministry, but it was not till 1729 that, at a general meeting of nonconformist ministers, he was chosen to conduct the academy established in that year at Harborough. In the same year he received an invitation from the congregation

at Northampton, which he accepted. Here he continued his ministrations till 1751, when the rapid progress of consumptive disease caused him to seek the advantages of a milder climate. Accordingly he sailed for Lisbon on the 30th September of that year; but the change was unavailing, and he died there on 26th October.

His popularity as a preacher is said to have been chiefly due to his "high susceptibility, joined with physical advantages and perfect sincerity." His sermons were mostly practical in character, and his great aim was to cultivate in his hearers a spiritual and devotional frame of mind. "He endeavoured," he says, "to write on the common general principles of Christianity, and not in the narrow spirit of any particular party." "There is," says his biographer, "a remarkable delicacy and caution evinced in the works of Dr Doddridge whenever the subject approaches the disputed points of theology. The genuine expressions of the sacred writers are then employed, and the reader is allowed to draw his own conclusions, unbiassed by the prejudices of human authorities." Those portions of his theological lectures which treat on the matter alluded to, substantiate this statement. His principal works are *The Rise and Progress of Religion in the Soul*, *The Family Expositor*, *Life of Colonel Gardiner*, and *A Course of Metaphysical, Ethical, and Theological Lectures*. He also published several courses of sermons on particular topics, and is the author of many well-known hymns.

See *Memoirs*, by Rev. Job Orton, 1766; *Letters to and from Dr Doddridge*, by Rev. Thomas Stedman, 1790; and *Correspondence and Diary*, in 5 vols. by his grandson, John Doddridge Humphreys, 1829.

DÖDERLEIN, JOHANN CHRISTOPH WILHELM LUDWIG (1791-1863), a distinguished German philologist, was born at Jena on the 19th December 1791. His father, Johann Christoph Döderlein, professor of theology at Jena, was celebrated for his varied learning, for his eloquence as a preacher, and for the important influence he exerted in guiding the transition movement from strict orthodoxy to a freer theology. Ludwig Döderlein, after receiving his preliminary education at Windsheim and Schulpforta, studied at Munich, Heidelberg, Erlangen, and Berlin. He devoted his chief attention to philology under the instruction of such men as Thiersch, Kreuzer, Voss, Wolf, Boeckh, and Buttman. In 1815, soon after completing his studies at Berlin, he accepted the appointment of ordinary professor of philology in the academy of Bern. In 1819 he was transferred to Erlangen, where he became second professor of philology in the university and rector of the gymnasium. In 1827 he became first professor of philology and rhetoric and director of the philological seminary. He continued to discharge the duties of both these offices until within a short period of his death, which occurred on the 9th November 1863. Döderlein's most valuable work as a philologist was rendered in the department of etymology and lexicography. He is best known by his *Lateinische Synonymen und Etymologien* (6 vols., Leipsic, 1826-38), and his *Homerische Glossarium* (3 vols., Erlangen, 1850-58). To the same class belong his *Lateinische Wortbildung* (Leipsic, 1838), *Handbuch der Lateinischen Synonymik* (Leipsic, 1839), and the *Handbuch der Lateinischen Etymologie* (Leipsic, 1841), besides various works of a more elementary kind intended for the use of schools and gymnasia. Most of the works named have been translated into English. To critical philology Döderlein contributed valuable editions of Tacitus (*Opera*, 1847; *Germania*, with a German translation) and Horace (*Epistolæ*, with a German translation, 1856-8; *Satiræ*, 1860). His *Reden und Aufsätze* (Erlangen, 1843-7) and *Oeffentliche Reden* (1860) consist chiefly of academic addresses dealing with various subjects in pedagogy and philology.

DODO, from the Portuguese *Dóudo* (a simpleton<sup>1</sup>), a large bird formerly inhabiting the island of Mauritius, but now extinct—the *Didus ineptus* of Linnaeus.

Brief mention of this remarkable creature has already been made (see BIRDS, vol. iii. p. 732), but some further particulars may be welcome. The precise year in which the Portuguese discovered the island we now know as Mauritius is undetermined; various dates from 1502 to 1545 having been assigned. Mascaregnas, their leader, seems to have called it *Cerne*, from a notion that it must be the island of that name mentioned by Pliny; but most authors have insisted that it was known to the seamen of that nation as *Ilha do Cisne*—perhaps but a corruption of *Cerne*, and brought about by their finding it stocked with large fowls, which, though not aquatic, they likened to Swans, the most familiar to them of bulky birds. However, the experience of the Portuguese is unfortunately lost to us, and nothing positive can be asserted of the island or its inhabitants (none of whom, it should be observed, were human) until 1598, when the Dutch, under Van Neck, arrived there and renamed it Mauritius. A narrative of this voyage was published in 1601, if not earlier, and has been often reprinted. Here we have birds spoken of as big as Swans or bigger, with large heads, no wings, and a tail consisting of a few curly feathers. The Dutch called them *Walghvögels* (the word is variously spelled), i.e., nauseous birds, because, as is said, no cooking made them palatable; but another and perhaps better reason, for it was admitted that their breast was tender, is also assigned, namely, that this island-paradise afforded an abundance of superior fare. De Bry gives two admirably quaint prints of the doings of the Hollanders, and in one of them the *Walghvögels* appears, being the earliest published representation of its unwieldy form, with a footnote stating that the voyagers brought an example alive to Holland. Among the company there was a draughtsman, and from a sketch of his Clusius, a few years after, gave a figure of the bird, which he vaguely called "*Gallinaceus Gallus peregrinus*," but described rather fully. Meanwhile two other Dutch fleets had visited Mauritius. One of them had rather an accomplished artist on board, and his drawings fortunately still exist.<sup>2</sup> Of the other a journal kept by one of the skippers was subsequently published. This in the main corroborates what has been before said of the birds, but adds the curious fact that they were now called by some *Dodaarsen* and by others *Dronten*.<sup>3</sup>

Henceforth Dutch narrators, though several times mentioning the bird, fail to supply any important fact in its history. Their navigators, however, were not idle, and found work for their naturalists and painters. Clusius says that in 1605 he saw at Pauw's House in Leyden a Dodo's foot,<sup>4</sup> which he minutely describes. Of late years a copy of Clusius's work has been discovered in the high

<sup>1</sup> Alewyn and Collé, in their *Woordenschat der twee Taalen Portugeesch en Nederduitsch* (Amsterdam: 1714, p. 362), render it "Een sot, dwaas, dol, of, uitzinnig mensch."

<sup>2</sup> It is from one of these that the figures of the large extinct Parrot (*Lophopsittacus mauritianus*), before given (BIRDS, vol. iii. p. 732), were taken. Prof. Schlegel has announced his intention of immediately publishing these sketches in *fac-simile*.

<sup>3</sup> The etymology of these names has been much discussed. That of the latter, which has generally been adopted by German and French authorities, seems to defy investigation, but the former has been shown by Prof. Schlegel (Versl. en Mededeel. K. Akad. Wetensch. ii. pp. 255 et seq.) to be the homely name of the Dabchick or Little Grebe (*Podiceps minor*), of which the Dutchmen were reminded by the round stern and tail diminished to a tuft that characterized the Dodo. The same learned authority suggests that Dodo is a corruption of *Dodaars*, but, as will presently be seen, we herein think him mistaken.

<sup>4</sup> What has become of the specimen (which may have been a rill of the bird brought home by Van Neck's squadron) is not known. Broderip and the late Dr Gray have suggested its identity with that now in the British Museum, but on what grounds is not apparent.

school of Utrecht, in which is pasted an original drawing by Van de Venne superscribed "Vera effigies huius avis *Walghvogel* (quæ & a nautis *Dodaers* propter foedam posterioris partis crassitiem nuncupatur), qualis viâ Amsterdamum perlata est ex insula Mauriti. Anno M.DC.XXVI." Now a good many paintings of the Dodo by a celebrated artist named Roelandt Savery, who was born at Courtray in 1576 and died in 1639, have long been known, and it has always been understood that these were drawn from the life. Proof, however, of the limning of a living Dodo in Holland at that period had hitherto been wanting. There can now be no longer any doubt of the fact; and the paintings by this artist of the Dodo at Berlin and Vienna—dated respectively 1626 and 1628—as well as the picture by Goiemare, belonging to the Duke of Northumberland, at Sion House, dated 1627, may be with greater plausibility than ever considered portraits of a captive bird. It is even probable that this was not the first example which had sat to a painter in Europe. In the private library of the late Emperor Francis of Austria is a series of pictures of various animals, supposed to be by the Dutch artist Hoefnagel, who was born about 1545. One of these represents a Dodo, and, if there be no mistake in Von Frauenfeld's ascription, it must almost certainly have been painted before 1626, while there is reason to think that the original may have been kept in the *vivarium* of the then Emperor Rudolf II., and that the portion of a Dodo's head, which was found in the Museum at Prague about 1850, belonged to this example. The other pictures by Roelandt Savery, of which may be mentioned that at the Hague, that in the possession of the Zoological Society of London (formerly Broderip's), that in the Schönborn collection at Pommersfelden near Bamberg, and that belonging to Dr Seyffery at Stuttgart are undated, but were probably all painted about the same time (*viz.* 1626 to 1628). The large picture in the British Museum, once belonging to Sir Hans Sloane, by an unknown artist, but supposed to be by Roelandt Savery, is also undated; while the still larger one at Oxford (considered to be by the younger Savery) bears a much later date, 1651. Undated also is a picture said to be by Pieter Holsteyn, and in the possession of Dr A. van der Willige at Haarlem in Holland.

In 1628 we have the evidence of the first English observer of the bird—one Emanuel Altham, who mentions it in two letters written on the same day from Mauritius to his brother at home. These have only of late, through the intervention of Dr Wilmot, been brought to light.<sup>5</sup> In one he says: "You shall receive . . . a strange fowle: which I had at the Iland Mauritius called by ye portingalls a *Do Do*: which for the rareness thereof I hope wilbe welcome to you." The passage in the other letter is to the same effect, with the addition of the words "if it live." Nothing more is known of this valuable consignment. In the same fleet with Altham sailed Herbert, whose *Travels* ran through several editions and have been long quoted. It is plain that he could not have reached Mauritius till 1629, though 1627 has been usually assigned as the date of his visit. The fullest account he gives of the bird is in his edition of 1638, and in the curiously affected style of many writers of the period. It will be enough to quote the beginning: "The Dodo comes first to a description: here, and in *Dygarrois*<sup>6</sup> (and no where else, that ever I could see or heare of) is generated the Dodo (a Portuguese name it is, and has reference to her simpleness,) a Bird which for shape and rareness might be call'd a Phoenix (wer't in Arabia:)"—the rest of the passage is entertaining, but the whole has been often reprinted. Herbert, it may be remarked, when he could see a possible Cymric similarity,

<sup>5</sup> *Proc. Zool. Soc.* 1874, pp. 447-449.

<sup>6</sup> *I.e.*, Rodriguez; an error, as we shall see.



was weak as an etymologist, but his positive statement, corroborated as it is by Altham, cannot be set aside, and hence we do not hesitate to assign a Portuguese derivation for the word.<sup>1</sup> Herbert also gave a figure of the bird.

Proceeding chronologically we next come upon a curious bit of evidence. This is contained in a MS. diary kept between 1626 and 1640 by Thomas Crossfield of Queen's College, Oxford, where, under the year 1634, mention is casually made of one Mr Gosling "who bestowed the Dodar (a blacke Indian bird) vpon ye Anatomy school." Nothing more is known of it. About 1638, Sir Hamon Lestrange tells us, as he walked London streets he saw the picture of a strange fowl hung out on a cloth canvas, and going in to see it found a great bird kept in a chamber "somewhat bigger than the largest Turkey cock, and so legged and footed, but shorter and thicker." The keeper called it a Dodo and shewed the visitors how his captive would swallow "large pebble stones . . . as bigge as nutmegs."

In 1651 Morisot published an account of a voyage made by François Cauche, who professed to have passed fifteen days in Mauritius, or "l'isle de Sainte Apollonie," as he called it, in 1638. According to De Flacourt the narrative is not very trustworthy, and indeed certain statements are obviously inaccurate. Cauche says he saw three birds bigger than Swans, which he describes so as to leave no doubt of his meaning Dodos; but perhaps the most important facts (if they be facts) that he relates are that they had a cry like a Gosling ("il a un cry comme l'oison"), and that they laid a single white egg, "gros comme un pain d'un sol," on a mass of grass in the forests. He calls them "oiseaux de Nazaret," perhaps, as a marginal note informs us, from an island of that name which was then supposed to lie more to the northward, but is now known to have no existence.

In the catalogue of Tradescant's *Collection of Rarities, preserved at South Lambeth*, published in 1656, we have entered among the "Whole Birds" a "Dodar from the island Mauritius; it is not able to flie being so big." This specimen may well have been the skin of the bird seen by Lestrange some eighteen years before, but anyhow we are able to trace the specimen through Willughby, Lhwyd, and Hyde, till it passed in or before 1684 to the Ashmolean collection at Oxford. In 1755 it was ordered to be destroyed, but, in accordance with the original orders of Ashmole, its head and right foot were preserved, and still ornament the Museum of that University. In the second edition of a *Catalogue of many Natural Rarities, &c.*, to be seen at the place formerly called the Music House, near the West End of St Paul's Church, collected by one Hubert alias Forbes, and published in 1665, mention is made of a "legge of a Dodo, a great heavy bird that cannot fly; it is a Bird of the Mauricius Island." This is supposed to have subsequently passed into the possession of the Royal Society. At all events such a specimen is included in Grew's list of their treasures which was published in 1681. This was afterwards transferred to the British Museum, where it still reposes. As may be seen it is a left foot, without the integuments, but it differs sufficiently in size from the Oxford specimen to forbid its having been part of the same individual. In 1666 Olearius brought out the *Gottorfisches Kunst Kammer*, wherein he describes the head of a *Walghvogel*, which some sixty years later was removed to the Museum at Copenhagen, and is now preserved there,

<sup>1</sup> Hence we venture to dispute Prof. Schlegel's supposed origin of "Dodo." The Portuguese must have been the prior nomenclators, and if, as is most likely, some of their nation, or men acquainted with their language, were employed to pilot the Hollanders, we see at once how the first Dutch name *Walghvogel* would give way. The meaning of *Doudo* not being plain to the Dutch, they would, as is the habit of sailors, convert it into something they did understand. Then *Dodaers* would easily suggest itself.

having been the means of first leading zoologists, under the guidance of Prof. Reinhardt, to recognize the true affinities of the bird.

Little more remains to be told. For brevity's sake we have passed over all but the principal narratives of voyagers or other notices of the bird. A compendious bibliography, up to the year 1848, will be found in Strickland's classical work,<sup>2</sup> and the list was continued by Von Frauenfeld<sup>3</sup> for twenty years later. The last evidence we have of the Dodo's existence is furnished by a journal kept by Benj. Harry, and now in the British Museum (*MSS. Addit.* 3668. 11. D). This shows its survival till 1681, but the writer's sole remark upon it is that its "flesh is very hard." The successive occupation of the island by different masters seems to have destroyed every tradition relating to the bird, and doubts began to arise whether such a creature had ever existed. Duncan, in 1828, shewed how ill-founded these doubts were, and some ten years later Broderip with much diligence collected all the available evidence into an admirable essay, which in its turn was succeeded by Strickland's monograph just mentioned. But in the meanwhile little was done towards obtaining any material advance in our knowledge. Prof. Reinhardt's determination of its affinity to the Pigeons (*Columbæ*) excepted; and it was hardly until Clark's discovery in 1865 (*BIRDS*, vol. iii. p. 732) of a large number of Dodos' remains, that zoologists generally were prepared to accept that affinity without question. The examination of bone after bone by Prof. Owen and others confirmed the judgment of the Danish naturalist, and there is now no possibility of any different view being successfully maintained.

The causes which led to the extirpation of this ponderous Pigeon have been discussed in a former article, and nothing new can be added on that branch of the subject; but it will be remembered that the Dodo does not stand alone in its fate, and that two more or less nearly allied birds inhabiting the sister islands of Réunion and Rodriguez have in like manner disappeared from the face of the earth. (A. N.)

DODONA, in Epirus, was the seat of the most ancient and venerable of all Hellenic sanctuaries. In the plain of the Dodonæa, and on the banks of the neighbouring Achelous, there dwelt in times long anterior to history the race of Helli or Hellenes, who thence spread into Thessaly and Greece. In after times the Greeks of the south looked on the inhabitants of Epirus as barbarians; nevertheless for Dodona they always preserved a certain reverence, and the temple there was the object of frequent missions from them. This temple was dedicated to the Pelasgic Zeus, the wielder of the thunderbolt in the storms so frequent in Epirus. Connected with the temple was an oracle which enjoyed more reputation in Greece than any other save that at Delphi, and which would seem to date from more early times than the worship of Zeus; for the normal method of gathering the responses of the oracle was by listening to the rustling of an old oak tree, which was supposed to be the seat of the deity, and by taking thence an augury of the future. We seem here to have a remnant of the very ancient and widely diffused tree-worship. Sometimes, however, auguries were taken in other manners, being drawn from the moaning of doves in the branches, the murmur of a fountain which rose close by, or the resounding of the wind in the brazen tripods which formed a circle all round the temple. The oracle was thus, compared with the articulate responses of Delphi, dumb, but none the less constantly consulted. Cræsus proposed

<sup>2</sup> *The Dodo and its Kindred, &c.* By H. E. Strickland and A. G. Melville. London: 1848. 4to.

<sup>3</sup> *Neu aufgefundene Abbildung des Dronle, u. s. w.* Erklärt von Georg Ritter von Frauenfeld. Wien: 1868. fol.

to it his well-known question; Lysander sought to obtain from it a sanction for his ambitious views; the Athenians frequently appealed to its authority during the Peloponnesian war. But the most frequent votaries were the neighbouring tribes of the Acarnanians and Ætolians, together with the Bœotians, who claimed a special connection with the district.

Dodona is not unfrequently mentioned by ancient writers. Homer speaks of it twice, once calling it the stormy abode of Selli who sleep on the ground and wash not their feet, and on the second occasion describing a visit of Odysseus to the oracle. Hesiod has left us a complete description of the Dodonæa or Hellopie, which he calls a district full of corn-fields, of herds and flocks and of shepherds, where is built on an extremity (*ἐπ' ἐσχάρῃ*) Dodona, where Zeus dwells in the stem of an oak (*φηγός*). Herodotus tells a story which he learned at Egyptian Thebes, that the oracle of Dodona was founded by an Egyptian priestess who was carried away by the Phœnicians, but says that the local legend substitutes for this priestess a black dove, a substitution in which he tries to find a rational meaning. From later writers we learn that in historical times there was worshipped, together with Zeus, an Asiatic goddess under the name Dione, and thenceforward the responses were given by the priestesses of the latter, who were called doves, and not by the Selli.

As to the site of Dodona there has been a good deal of discussion. We know from the authorities that the town was situated in a fertile vale at the foot of the mountain Tomarus, whence issued a multitude of springs, and that it was on the eastern boundary of Epirus, and on the confines of Thesprotia and Molossis. We are further told that Dodona was a two days' journey from Ambracia, and a journey of four days from Bathrotum. It would also appear certain that it was in a region of frequent thunderstorms. In accordance with these indications, Colonel Leake fixed on Castritza near Janina in Epirus, at the foot of the mountain Mitzikéli, as the site of Dodona. But his reasons are not conclusive. Quite recently excavations have been undertaken at a spot in the valley of Dramisius, a few leagues south of Castritza, at the foot of Mount Olytzika, where Leake found the remains of a theatre and of two temples. This has usually been supposed to be the site of Passaron, the ancient capital of the Molossian kings. But these excavations have brought to light not only many antiquities, but tablets *ex voto* bearing dedicatory inscriptions to Zeus Natos and Dione, and many fragments of tripods, whence it would seem highly probable that the opinion of Leake must be given up, and the new site definitely fixed upon as that of Dodona. (See Leake, *Northern Greece*, vols. i. iv.; *Revue Archéologique* for 1877, pp. 329, 397.)

The temple of Dodona was destroyed by the Ætolians in 219 B.C., but the oracle survived to the times of Pausanias and even of the emperor Julian.

DODSLEY, ROBERT (1703-1764), an eminent bookseller and versatile writer, born in 1703 at Mansfield, Nottinghamshire, where his father is said to have been a schoolmaster. In his youth he was apprenticed to a stocking-weaver, from whom he ran away, taking service as a footman. His first poetical attempts seem to have been made when he was a servant in the family of the Hon. Mrs. Lowther, and were published by subscription under the title of *The Muse in Livery, or the Footman's Miscellany* (1732). This was followed by an elegant little satirical farce called *The Toyshop*, the hint of which is said to have been taken from Randolph's *Muse's Looking-glass*, and which, having obtained the approbation of Pope, was acted at Covent Garden with great success. The profits accruing from the sale of these two publications enabled him to

establish himself as bookseller in Pall-Mall; and his merit and enterprising spirit soon made him one of the foremost publishers of the day. One of the first copyrights he published was that of Johnson's *London*, for which he gave ten guineas in 1738, and he was afterwards the leader of the association of booksellers that furnished Johnson with funds for the preparation of his *English Dictionary*. In 1737 a new piece of his own, entitled *The King and the Miller of Mansfield*, was received with undiminished applause. His immediately subsequent farces, however, were not so popular. In 1738 he published a collection of his dramatic works in one volume 8vo, under the modest title of *Trifles*, which was followed by the *Triumph of Peace*, a masque, occasioned by the treaty of Aix-la-Chapelle, and a fragment on *Public Virtue*. Dodsley was also the author of the *Economy of Human Life*, a work which acquired considerable celebrity; but for this it is supposed he was not a little indebted to the mistaken opinion which long prevailed that it was the production of Lord Chesterfield. The name of Dodsley is from this period associated with much of the literature of his time. Among other things he projected *The Annual Register*, commenced in 1758, *The Museum*, *The World*, and *The Preceptor*. To these various works Horace Walpole, Akenside, Soame Jenyns, Lord Lyttelton, Lord Chesterfield, Edmund Burke, and others were contributors. His own latest production was a tragedy entitled *Cleone*, which was received with even greater enthusiasm than his earlier works. It had a long run at Covent Garden; two thousand copies of it were sold on the day of publication, and it passed through four editions within the year. It has long, however, ceased to be read, and apart from his fame as a publisher Dodsley is now chiefly remembered on account of his *Select Collections of Old Plays* (12 vols. 12mo, London, 1744; 2d edition, 12 vols. 8vo, 1780). He died at Durham while on a visit to a friend, 25th September 1764.

DODWELL, EDWARD (1767-1832), an English antiquarian writer and draughtsman of considerable note in the department of classical investigation. He belonged to the same family as Henry Dodwell the theologian, and received his education at Cambridge. Being under no necessity to adopt a profession as a means of livelihood, he devoted himself entirely to his favourite pursuits, travelled for several years—from 1801 to 1806—in Greece, and spent the rest of his life for the most part in Italy, either at Naples or at Rome. An illness contracted in 1830 during a visit of exploration to the Sabine Mountains, undermined his constitution and ultimately resulted in his death, which took place at Rome in May 1832. His widow, a daughter of Count Giraud, was thirty years his junior, and after his death became famous as the "beautiful" countess of Spaar, and played a considerable rôle in the political life of the Papal city.

His works are—*A Classical and Topographical Tour through Greece*, 2 vols., London, 1819, of which a German translation by Sieckler was published at Meiningen in 1821; *Views in Greece*, consisting of thirty coloured plates, London, 1821; and *Views and Descriptions of Cyclopiian and Pelasgic Remains in Italy and Greece*, London 1834. The last work, which contains 130 plates, was brought out simultaneously at Paris with a French text.

DODWELL, HENRY (1641-1711), a learned controversial writer, was born at Dublin in October 1641. His father had once been possessed of considerable property in Connaught, but having lost it at the rebellion settled at York in 1648. Here Henry received his preliminary education at the free school. By the death of his parents he was reduced in early life to the greatest poverty. In 1654 he was sent by his uncle to Trinity College, Dublin, of which he was soon afterwards chosen scholar and fellow. Having conscientious objections to take



orders he relinquished his fellowship in 1666, and resided for some time at Oxford, Dublin, and London successively. In 1688 he was elected Camden professor of history at Oxford; but in 1691 he was deprived of his professorship for refusing to take the oaths of allegiance to William and Mary. Retiring to Shottesbrooke in Berkshire, and living on the produce of a small estate in Ireland, which he had at first generously relinquished in favour of a near relation, he devoted himself to those literary labours in chronology and ecclesiastical polity on which his fame now rests. In the former department he published—*Discourse on the Phenician History of Sanchoniathon* (1681); *Annales Thucydidei et Xenophontei* (1696); *Chronologia Græco-Romana pro Hypothesibus Dion. Halicarnassei* (1692); *Annales Velleiani, Quintiliani, Statiani* (1698); and a larger treatise entitled *De Veteribus Græcorum Romanorumque Cyclis, obiterque de Cyclo Judæorum ac Ætate Christi, Dissertationes* (1701). All these obtained considerable reputation, and were frequently reprinted. Gibbon speaks of his learning as "immense," and says that his "skill in employing facts is equal to his learning." In the department of ecclesiastical polity his works are more numerous and of much less value, his judgment being far inferior to his power of research. In his earlier writings he was regarded as one of the greatest champions of the non-jurors; but the absurd doctrine which he afterwards promulgated, that immortality could be enjoyed only by those who had received baptism from the hands of one set of regularly ordained clergy, and was therefore a privilege from which dissenters were hopelessly excluded, justly deprived him of the confidence even of his friends. It is interesting, however, in view of the recent revival of the same doctrine, to know that he published in 1706 a treatise professing to prove from Scripture and the first fathers that the soul is naturally mortal. Dodwell died at Shottesbrooke, 7th June 1711. His eldest son Henry is known as the author of a pamphlet entitled *Christianity not founded on Argument*, to which a reply was published by his brother William, who was besides engaged in a controversy with Dr Conyers Middleton on the subject of miracles.

DOG, a name common to several species of *Canidæ*—a family of Carnivorous Mammals widely distributed over nearly every part of the globe. Many of the species belonging to this family, as the wolf and the jackal, are social animals, hunting in packs, and are readily tamed; while in confinement they show little or no repugnance to breeding. In a group thus eminently capable of domestication, it is not surprising that in the earliest times one or more species should have been brought under the dominion of man, or that under human care the domestic dog should have become, as Baron Cuvier calls it, "the completest, the most singular, and the most useful conquest ever made by man." There is sufficient evidence to show that the dog existed in the domesticated state during prehistoric times; consequently neither history nor tradition is available to solve the question of its origin. That must be decided, if at all, by the naturalist, and the variety of opinion existing on this point at the present time renders it exceedingly improbable that the parentage of the dog will ever be ascertained with certainty. Some suppose that all our breeds have sprung from a single wild source, others that they are the product of the blending of several distinct species. Of the former, the majority regard the wolf as the parent form, others favour the claims of the jackal, while a few regard them as the descendants of an extinct species, and point to the fossil remains of a large dog, found in the later Tertiary deposits, as the probable wild stock. The prevalent belief at the present day is probably that which regards the domestic dog as the pro-

duct of the crossing of several species, living and extinct. This opinion is founded on such considerations as the presence in the earliest historic times of many breeds (totally distinct from each other, and nearly resembling existing forms), the existence of wild species of dogs in all quarters of the globe, the fondness of savage man for taming wild animals, and the extreme improbability that among so many presumably equally tameable canine species only one should have been chosen for domestication. Nor is it to be forgotten, as Darwin has well shown, that fear of man in most wild animals is a gradually acquired instinct, and that before its acquirement a wild species would have been much more readily tamed than after. Thus the wild dog of the Falkland Islands (*Canis antarcticus*), when these were first visited by man, approached him without sign either of fear or of aversion. The weightiest reason for this opinion, however, lies in the fact that many of the breeds of domestic dogs, found in different countries, bear a more or less striking resemblance to the wild species still existing in those countries. The Esquimaux dogs of North America so closely resemble the wolf of the same regions, both in appearance and in voice, that Sir J. Richardson on one occasion mistook a pack of those wild animals for a troop of Indian dogs; and the Indians are said to take the young of wolves in order to improve their canine breed, which would seem to prove that the dog and wolf are sufficiently fertile *inter se*. The Hare Indian or Mackenzie River Dog, although somewhat smaller in size than the prairie wolf (*Canis latrans*) occurring in the same regions, so resembles the latter that Richardson could detect no decided difference in form. It seems, in fact, to bear the same relation to the prairie wolf that the Esquimaux dog does to the great grey wolf already mentioned. The wolf certainly exhibits few peculiarly dog-like qualities, being both ferocious and cowardly, and showing no attachment to man; but instances, nevertheless, are on record of tamed wolves which in their gentleness, in love for their masters, and in intelligence, showed true dog-like capacity. The Esquimaux dogs are likewise decidedly wolfish in disposition, showing little or no attachment to their owners, and sometimes, it is said, even attacking them when pressed by hunger. Distinct varieties of the wolf occur in Europe and in India, and such European breeds as the shepherd dog of Hungary so closely resemble the wolf that an Hungarian has been known to mistake that animal for one of his own dogs; while certain of the Hindu pariah dogs are said by Blyth to resemble the Indian variety of wolf. The large semi-domesticated dogs of the northern parts of both hemispheres may thus be regarded as principally derived from the various species and varieties of wolves still existing there. The period of gestation in the wolf and dog is the same, being 63 days in both. In the tropical regions of the Old World the wolf disappears, and with it the prevalence of wolf-like dogs, their places being taken by smaller breeds, such as certain of the pariah dogs of India and of Egypt, between which and the jackals abounding in those countries no structural difference can, according to Geoffroy Saint-Hilaire, be pointed out. Their period of gestation agrees with that of the dog and wolf, and like dogs, tamed jackals when caressed "will," says Darwin, "jump about for joy, wag their tails, lower their ears, lick their master's hands, couch down and even throw themselves on the ground belly upwards;" when frightened, also, they carry their tails between their legs. Jackals associate readily with dogs, and their hybrid offspring are not sterile; there is also an instance on record of one of these which barked like an ordinary dog. The habit of barking, so characteristic of dogs, is not, however, universal among them, the domestic dogs of Guinea and certain Mexican breeds being described

as dumb. This faculty appears to be readily lost and to be capable of reacquirement. The domestic dogs which ran wild on the island of Juan Fernandez are said to have lost the power of barking in 33 years, and to have gradually reacquired it on removal from the island. The Hare Indian Dog makes an attempt at barking, which usually ends in a howl, but the young of this breed born in the Zoological Gardens seem to possess this faculty to the full extent. In tropical America, where jackals are unknown, there are several wild species of dogs to which the domestic breeds of those regions bear a considerable resemblance, and at the present day the Arawak Indians cross their dogs with an aboriginal wild species for the purpose of improving the breed. In Australia the Dingo, regarded by many as constituting a distinct species indigenous to that country, its remains having been found in caves associated with those of other extinct mammals, occurs both in the wild state and domesticated at the present day. Darwin, after reviewing this question, concludes that "it is highly probable that the domestic dogs of the world have descended from two good species of wolves (*Canis lupus* and *C. latrans*), and from two or three other doubtful species of wolves, namely, the European, Indian, and North African forms, from at least one or two South American canine species, from several races or species of the jackal, and perhaps from one or more extinct species."

Remains of the dog, of Neolithic age, occur in the kitchen-middens of Denmark, and in similar deposits in Switzerland. In Denmark the earliest known dog is followed, in the Bronze period, by a larger breed, and that by a still larger form in the succeeding or Iron period; while a somewhat similar succession occurs in Switzerland. These successive changes, however, may merely indicate the appearance in those countries of new races of prehistoric man, who brought with them their own dogs. In historic times the earliest records of the dog are to be found in the figures of these animals on Egyptian monuments from three to five thousand years old; and these show that thus early, such varieties as the hound, greyhound, watch-dog, and turnspit were cultivated on the banks of the Nile. By the ancient Egyptians the dog was worshipped under the title Anubis, as the genius of the River Nile,—the appearance of Sirius, the dog star, corresponding with the time of the annual rise of that river. The city of Cynopolis was built in its honour, and there its worship was carried on with great pomp. Certain kinds of dogs were regularly sacrificed to Anubis, their bodies being afterwards embalmed; and occasionally the mummies of these are still found. The earliest record of the dog in sacred history is in connection with the sojourn of the Israelites in Egypt; and the religious homage paid to it by their oppressors may probably explain why the Jews were taught to regard it as unclean. Under Moslem law, which in many matters was founded upon Jewish practices, the dog occupies an equally degraded position; and throughout Mahometan countries at the present day, their generally wretched condition bears ample testimony to the neglect and ill-treatment to which for centuries they have been subjected. The pariah dogs of Eastern cities know no master; they prowl about the streets in troops, eating whatever garbage may come in their way, thus serving the useful purpose of scavengers, and occasionally receiving a meal from the more humane of the inhabitants. On no account, however, must even the garments of an orthodox Mahometan be defiled by their touch, and such is the intelligence and sagacity of these ownerless curs that, having become aware by painful experience of this religious prejudice, they seem to take the greatest care to avoid giving such offence. The value set upon the dog by the Egyptians seems to have been shared in by the ancient

Greeks and Romans, who possessed many breeds closely allied to still existing forms. Those early breeds, however, are remarkable for the entire absence of pendulous ears, which do not make their appearance till near the decline of the Roman empire. By both Greeks and Romans they were employed in the chase, and in war, and for the latter purpose they were armed with spiked collars, and sometimes even with a coat of mail. Corinth was said to have been saved by 50 war dogs, which attacked the enemy that had landed while the garrison slept, and which fought with unbounded courage till all were killed except one, which succeeded in rousing the garrison. Shakespeare thus put no figure of speech in the mouth of Antony when he exclaims—

"Cry havoc, and let slip the dogs of war."

Dogs are naturally carnivorous, preferring flesh that is slightly putrid; but they can also live on vegetable food, and in countries where the dog itself is eaten, it is generally thus fed. In drinking it laps with its tongue, and it never perspires, although when heated its tongue hangs from its mouth, and a fluid runs from it. When about to go to sleep, no matter where, it turns round and round, and scratches the ground with its forepaws as if to form a hollow couch; and in this seemingly senseless action it is no doubt continuing a habit once found useful to its wild progenitors. Its sense of smells and hearing are exceedingly acute, and many suppose that the remarkable power possessed by the dog, in common with the cat, of finding its way for great distances along unknown roads may be due to the exercise of the former sense. The differences that obtain between the various breeds of dogs are very great, the skulls, according to Cuvier, differing more from each other than they do in the different species of a natural genus. The molar teeth, which normally consist of 6 pairs above and 7 below, sometimes number 7 pairs above and below, while in the hairless dog of Egypt the teeth are sometimes reduced to a single molar on each side, incisors and canines being entirely wanting. Some varieties are six times as long as others, excluding the tail, and the number of vertebrae in the latter organ is also exceedingly various; nor is the number of mammae always uniform, there being 5 on each side in some, and 4 in others, while occasionally the number on the two sides is unequal.

While man has thus bestowed great attention on the physical development of the dog, and availing himself of natural variations has, by careful selection and intercrossing, moulded the dog into an almost infinite variety of forms, he has also, by education, developed its moral and intellectual capabilities, so that the dog may, in this respect, be said to have, within its own limits, kept pace with its master's advancement; and it is undoubtedly owing to a certain community of feeling existing between dog and man that this domestic animal has, since the earliest times, been regarded as the companion as well as the humble servant of mankind. There are few human passions not shared in by the dog. It is, like him, subject to anger, jealousy, envy, love, hatred, and grief; it shows gratitude, pride, generosity, and fear. It sympathizes with man in his troubles, and there are numerous instances on record of its showing sympathy for the distressed of its own kind. It remembers, and is evidently assisted thereto, as man is, by the association of ideas; that it is not devoid of imagination may be assumed from the fact that it dreams, pursuing in its sleep imaginary game. Its judgment is often singularly correct; while it may almost be said to have a religion, in which man is its god, and his will its rule of conduct, disobedience to which produces an evident feeling of shame and a quiet submission to punishment. It shares with man in awe of the unknown, and the most