#### HARVEY IN SCOTLAND.\*

By HENRY WADE, C.M.G., D.S.O., F.R.C.S.Ed.

On the forenoon of Saturday, the eleventh day of May, in the year 1633, a cavalcade set forth from Whitehall bound for Scotland. They formed a goodly company, as is fit when a King goes forth to be crowned, and in this company are three men whom I would wish you to make special note of. They have certain points of resemblance: they are small in stature, lithe in frame, sharp of feature and intelligent of countenance. The first is Charles Stuart, Charles I, King of Great Britain and Ireland. His features bear that quiet, pensive, contemplative, melancholy look that Van Dyke has immortalised. The second is William Harvey, the King's Private Physician. It is recorded of him that he was a man of the lowest stature, round-faced, with a complexion like the wainscot; his eyes small, round, very black and full of spirit; his hair as black as a raven and curling; rapid in his utterance, choleric, given to gesture, and used when in discourse with any one to play unconsciously with the handle of the small dagger he wore by his side. This little man of spirit and character was beloved of all, and called by many their beloved little physician. third is Dr Laud, Bishop of London. "Laud, nicknamed 'The Shrimp,' was a sharp-edged little man, saying openly what he felt and saying it to whom he would; he shirked no quarrel." 1

The fateful journey of these three little men, as has been mentioned, commenced this May Saturday morning. It ended at Greenwich before the end of July, and in that brief period the death of a dynasty was decreed and the destinies of a world-wide Empire then determined: a strange fate to attend so simple and innocent a venture, but, at the same time, one where the personality of the chief actors played unconsciously a foremost part in determining their fate. I therefore purpose sketching for you in brief outline the lives of these three men.

<sup>\*</sup> The Harveian Oration delivered at the 151st Harveian Festival, 10th June 1938.

William Harvey was in his fifty-sixth year when commanded by his King to accompany him to Scotland. He had been born on the 1st of April 1578 on the wind-swept shores of the English Channel. He was the son of a Yeoman of Kent—Dover and Folkestone were his playground. He was the eldest of seven sons and a member of a happy devoted family, a devotion which persisted throughout all their lives and was mutually helpful, and by which William benefited when he, ever careless of his personal finances, entrusted his affairs to his younger brother Eliab, a first-class business man.

I would ask you to imagine this young lad, bright and intelligent, now eleven years of age, living in his father's house at Folkestone, and to think of the stories and tales of adventure that he heard and the sights he saw during the eventful summer of 1588 when the Great Armada was defeated. This young schoolboy, gifted with the healthy curiosity and retentive memory that boys of this age all possess, must have known well the figure of the bluff Sir John Hawkins, busily engaged in fitting out as best as he could Her Majesty's navy. The dapper and smart Sir Francis Drake must often have been pointed out to him, and the stories and legends that his presence suggested he doubtless knew well. Likewise, Martin Frobisher, that bluff, heavy-set, shrewd Yorkshireman, who commanded the Dover Patrol, and who went in and out of Dover and Folkestone regularly as his ships beat up the Channel, would also be to him a familiar figure. Ships and naval strategy and such like things would be heard by him as the daily talk at his father's table, and probably he heard his father laying down in emphatic terms the strategy of Drake, which was that an enemy's fleet should always be attacked and destroyed in enemy's waters, if possible in enemy's harbours: England's sure shield of defence he then heard expressed for the first time, the strategy on which an Empire was created.

Friday, 19th July, in the year 1588, brought with it the Spanish Armada. Sighted off the Lizard, its advent was followed by ten days brimful of youthful joy and adventure for young Will—off-shore guns firing day and night, the coming and going of ships and stores. From Devon to Dover the sea and the land were aboil. Off-shore the navy of England fought the stately ships of Spain, and in-shore were groups of young lads who, having borrowed a ship and scraped together a crew, pushed off to form still another unit in this Her Majesty's navy.

But even in those days young William heard grumblings, the nature of which perhaps he could not clearly understand. He did not realise then that in the Queen of England there was combined the greatest of Queens and the meanest of skinflints, who could only be forced most reluctantly to feed the seamen of her navy, and even with the Spanish Armada in sight tried a still further experiment in economic rations. At a time when so much was expected of them, instead of extra rations, she had chosen to conduct a dietetic and financial experiment of peculiar interest. Elizabeth permitted some inspired idiot (to speak with charity of the obscure dead) to substitute for salt beef and dried mutton a foreign diet of peas, fish and olive oil, on board her ships. "Says the fleet order for March 12, 1588:

Every man's victual of beef standeth her Majesty fourpence the day. . . . So the mess being four persons it amounteth to sixteen pence the day for their meat besides bread and drink. By altering that kind of victual for fish, oil and peas, her Majesty's charge will be but three pence for three fishes the day at ten shillings the hundred of Newland (Newfoundland) fish, two pence in oil for the mess the day and two pence in peas at two shillings the bushel, with one penny on every mess for casks and other charges which is half the charge that beef did stand." <sup>2</sup>

I feel convinced that few would be surprised when it is said that such provender made men sick.

In the autumn of the year that the Spanish Armada was defeated, young Harvey went to King's School, Canterbury. He remained at this English public school for five years, coming home for the holidays to his father's house at Folkestone. He nextly went to Cambridge, being entered at Caius College as a Fellow, and from Cambridge he went to the University of Padua in 1598 and became there a member of the Universitas Juristarum which admitted a few medical and divinity students within their aristocratic college. Here Harvey became a student and friend of Fabricius, then a man of sixty-two years, and who at that time was engaged in studying the valves of the yeins. It would appear that it was Fabricius's influence and inspiration that led Harvey to engage in research work on the circulation of the blood.

In 1602 Harvey graduated a Doctor of Medicine of Padua, in the company of another Englishman called Lister.

On his return to England Harvey took his M.D. at Cambridge and was admitted to the College of Physicians, being elected a Fellow on the 5th of June 1607. He now applied for and obtained the post of what is now called Assistant Physician in St Bartholomew's Hospital, and, when his Chief, Dr Wilkinson, died, Harvey became full physician on the 4th of October 1609. Six years later he was appointed Lumleian Lecturer to the Royal College of Physicians, an appointment he held until 1656. He lectured then on anatomy and surgery. An anatomical demonstration in those days was a most elaborate and highly organised function carried through with much ceremony, every detail regulated strictly by precedent.

The study of anatomy seems to have been regarded universally as an exhausting occupation, for throughout Europe it was the custom to present the auditors with wine and spices after each lecture, unless some more substantial refreshment was provided.

The next outstanding advance in Harvey's career occurred on 3rd February 1618, when he was appointed Physician-Extraordinary to James I. "The King, as a mark of his singular favour, granted him leave to consult with his ordinary physicians as to his Majesty's health." <sup>3</sup>

This appointment carried with it the promise of the post of Physician-in-Ordinary as soon as one should become vacant, but it was not until fourteen years later, when Charles I. was King, that he was appointed Physician-in-Ordinary to that monarch, whose firm friend he remained throughout all his life.

The year 1628 is looked upon as the crowning year of Harvey's scientific life, as it was then that he published at Frankfort-on-the-Main his matured account of the circulation of the blood. After its publication he was sometimes heard to say that he fell mightily in his practice.

A Minute of a Meeting of the Court of Governors of Saint Bartholomew's Hospital of Monday, 25th April 1631, mentions "Dr William Harvey, now Physician to this Hospital, late sworn Physician-in-Ordinary for his Majesty's household with the yearly stipend thereunto now belonging." This salary was three hundred pounds a year. Thus it was by royal command that Harvey attended at Whitehall to accompany King Charles as his private physician on his journey north.

When Charles Stuart was born at Dunfermline there were few who believed he would live to grow up, and none entertained the idea that he would ultimately rule as King of England. He was the youngest of three children. When Charles was born, his eldest brother, Henry, was then six years old and was a fine, handsome, vigorous boy, dark-eyed and active and vivacious, like his mother. Next came Elizabeth, a healthy, attractive child, and now on 9th November 1600, Charles was born—a puny, distressful infant, considered hardly destined to live. Three years later he is still a sickly infant, not yet able to walk, when Robert Carey brought the last of his weary galloping relay horses into the courtyard of Holyroodhouse, having ridden the 397 miles from London in sixty hours, to tell King James that Queen Elizabeth was dead and he was King of England. Forthwith King James set out for London, but it was not until the following year that the frail Charles was thought fit to leave Dunfermline to join his parents, and thus this little, lonely, weakly, and anæmic younger son went south. His father, alarmed that now at the age of five the child is still unable to walk properly, wanted to have him fitted with leg irons to support his weak ankles, and for his difficulty in speech, which remained with him all his life, he wished to have him operated on. It was the infant's good fortune, however, to have been put under the care of an able strong-minded woman, Lady Carey, who would have none of She carried the infant off to the country, and under her direction a quiet, shy boy, with a weak frame but a proud, courageous spirit, grew up. At eleven years of age, Lady Carey terminated her charge, having made a little man of him. At twelve years a calamity fell upon the household, when his big handsome, beloved brother, Henry, now aged eighteen, suddenly died from pneumonia following a chill caught after a violent game of tennis, and the little Charles became heir-apparent in the Royal line. Thus he grew up through a lonely life to manhood's estate, with a will and mind that were disciplined. In stature he measured five feet four inches.

And now on the eve of his journey he has been for eight years King. He is about to set forth to be crowned King of the Scots in his Scottish capital of Edinburgh, surely a truly simple, innocent, safe and praiseworthy adventure, but, in the execution of it, he was fated to create so much disharmony and discord as ultimately to lead to his own death.

The Stuart line was doomed to death in the summer of 1633 in the City of Edinburgh. This was brought about by the action of a King, whose fault was that he was too much of a gentleman and too little a man of the world to be an absolute monarch.

He decided when north at his coronation while the time was opportune to discharge an act of tardy justice to the Crown and realm of his country. He would take the opportunity of his visit to get the Scottish Parliament to re-enact the Revocation of 1625 which was based on a wise Scottish Law wherein the Crown of Scotland (differing from the Crown of England) by custom and tradition and by law had full right to reassume public properties looted during royal minorities. This Charles proposed to do, unmindful of the fact that so much of this loot had passed into the occupancy of the Scottish nobility, and thereby he alienated the sympathy of a class never famed for their national patriotism, a serious loss to the Crown but not vital, if the burgers and yeoman class and common people had been thereby rallied round their King. Therein lies the disastrous consequences of the presence of the third little man of the party, Dr Laud, Bishop of London. It was his action that culminated 300 years ago this year in the signing by the people of Scotland of the Solemn League and Covenant and the creation of the Covenanters. At that time it was widely believed in Scotland that Laud was secretly working on behalf of the Roman Catholic Church, whereas the contrary was the case. He was a pedantic prelate, with a passion for ritual and a totalitarian mind anxious to establish one King, one people and one Church throughout the British Isles. Unfortunately, he misjudged the temperament of the common people of Scotland, and thus they too were alienated from their King, so that peer and peasant joined together and took up arms with a consequence that none foresaw, but which ultimately led to the downfall of Laud and the death of King Charles on the scaffold.

Further, in considering the reasons that influenced King Charles to visit the land of his birth, one has to remember the troubles that assailed him and the difficulties he had encountered in his rule as an absolute monarch, who, at the same time, had not control of the finances of his realm.

In Maitland's *History of Edinburgh* it is set forth that, "The King having resolved to fit out certain Ships of War

for securing the Coasts of the kingdom, and to erect Forts in such Places as should be judged most convenient, wrote to the Convention of Boroughs to know what they were willing to contribute on this occasion." <sup>4</sup>

The Common Council of Edinburgh strongly supported this proposal, an action which earned the King's sincere gratitude, especially, as he says in his Letter of Thanks, "as it is the more acceptable unto us that you have done it freelie of yourselsis, seiking onlie how to please us, and not conforme yourselsis to others, who were not so forward in our Service." 5

This was the tax which later became the bone of contention between Charles and his English Parliament. It was a four years' plan, and the quota of the City of Edinburgh was 40,000 pounds Scots. This being paid, was a favour so acceptable to Charles that he sent a letter to his Privy Council in Scotland, "his richt trustie and weill belovit Counsellors," as an acknowledgment thereof. In it he thanks his beloved Counsellors for having met the whole four years' payment of their taxation at one time. He expresses his gratitude, and in grateful remembrance of the service then done, presented the City of Edinburgh with a sword and gown to be carried before and worn by their Lord Provost on such occasions.

(Mr Robertson, the Town Clerk of the City of Edinburgh, with whom I communicated, informs me that the Sword of King Charles is still borne in front of the Lord Provost, but the gowns have changed their design from time to time.)

Two years later King Charles writes again to say:

"Whereas we intend verye schortlie (God willing) to visit that oure antient and native Kingdome, for receiving oure Crown, holding a Parliament in Persone, and perfyting that great Worke, wherein we and Commissioneris have much laboured for the Guid of all oure Subjects thair." 6

As we have seen, his visit, however, did not take place until five years later.

When the King set out from Whitehall on the eleventh day of May 1633 to be crowned in Scotland, he was accompanied by a small army of lay and clerical courtiers and personal attendants, it being stated that the cavalcade required 908 servants and 1179 horses. It must be remembered, however, that those who formed the party drew what we would now call "travelling allowance," according to their station. Thus the 31 gentlemen pensioners appointed to wait on his

Majesty's downcoming to Scotland had allowed to them maintenance for 93 horses and 93 servants. The actual number in attendance presumably is therefore considerably less than the full allowance. Of the members of the Royal Household the Lord Chamberlain was allowed 47 horses and 41 servants. The Marquis of Hamilton headed the list with 202 horses and 67 servants. Of the II Earls in attendance, no two were granted the same allowance, which varied widely for reasons that are not obvious. Thus, the Earl of Carlisle is allowed 50 horses and 53 servants, and the Earl of Southampton 16 horses and 10 servants. The Bishop of London, Dr Laud. is allowed 16 horses and 10 servants, as is also the Bishop of Ely. Two cupbearers, Sir Humphrey Styles and Mr William Elphinstoun, are allowed jointly 8 horses and 8 servants, so also are two carvers and two squires of the body. physicians, Doctor Beltone and Dr Harvey, are also allowed jointly 8 horses and 8 servants. The two surgeons, Seriant Clowes and Michael Andrews, are placed on a slightly lower scale of allowance with 6 horses and 6 servants. A single apothecary, Mr Jo. Volffe Romler, fares well with 5 horses and 5 servants to himself. The barber, Mr Tho. Caldwell, gets 3 horses and 3 servants. It is interesting to note that the Secretary for Scotland and Sir Robert Ker, Privy Purse, get no allowance.

I presume that this was due to their being holders of purely Scottish offices. This also held good for the servants of the chapell, which consisted of a sub-deane, 4 basses, 4 tennors, 4 contra tennors, 2 organists, 3 children, these all receiving no allowance of servants and horses because they came by sea.

The journey north was made in easy stages, one night and occasionally two being spent at each halting-place. They followed the Great North Road by Huntington, Stamford, Grantham, Newark, Doncaster, York, Durham, Newcastle, Alnwick and Berwick.

On Saturday, 8th June, they arrived at Berwick, where they stayed four days, having covered the 337 miles in 18 stages of approximately 19 miles each.

On Wednesday, 12th June, they journeyed to Dunglass, that mansion near Cockburnspath, which was so frequently destroyed by the English, and had recently been rebuilt, and had accommodated James VI. on his journey south in 1603. From Dunglass the Royal party proceeded to Settone House,

or Palace, then at the height of its splendour, when it was reckoned to be by far the finest Scottish residence of the sixteenth and seventeenth centuries. It has been frequently the residence of royalty, and Queen Mary and James I. had often been in residence there.

From Settone the Royal party went to Dalkeith. His Majesty received very magnificent entertainment from the Earl of Winton at Settone and the Earl of Morton at Dalkeith, from which latter his Majesty went direct to Edinburgh on Saturday, 15th of June, where he entered with all his train with a very triumphant and royal equipage.

Naturally, a considerable amount of staff work had been done in preparation for the Royal visit. On 14th June, by Order of Council issued at Dalkeith, it was enacted that "for his Majesty's more stately and orderly entry within the Borough of Edinburgh, that the Lords, spiritual and temporal, and others whom by their place and charge owed attendance on that occasion should meet his Majesty at the long gait at one in the afternoon and shall be marshalled and ranked according to their dignity and place and shall ride and accompany his Majesty at his entry."

The Records of Sir James Balfour, Lord Lyon King of Arms to Charles I. and Charles II., give a very full and accurate account of the order of the King's triumphant entry into the City of Edinburgh.<sup>8</sup> In his own words he says:

"For maney ages this kingdome had not seine a more glorious and staitly entrey, the streetts being all railled and sanded; the cheiffe places quher he passed wer sett outt with staitly triumphall arches, obeliskes, pictures, artificiall montains, adorned with choysse musicke, and diuersse otheres costly shewes."

In the centre of this cavalcade "cam the Kings Maiesty ryding one a barbarey, with ane exceiding riche caparissone and foote clothe of crimpsone weluett, embrodred with gold and orientall pearles, the bosses of brydle, curper and tye, being richly sett with emralds, rubies and diamonds, and in his head a panache of read and whyte plumes." 9

After the King followed James, Marquess of Hamilton, Master of his Majesty's horses, riding on a horse richly mounted.

They entered by the West Port, and "upon the South side of the samen port, Alexander Clerk, then provost of Edinburgh,

with the baillies, all cled in reid robes, weill furred, and about three score of the eldermen and counsellors cled all in black velvet gowns, were sitting all upon seats of dealls for the purpose, bigged of three degrees, frae the whilk they all raise in great humilitie and reverence to his Majestie, and the said Alexander Clerk, provost, in name of the rest and toun of Edinburgh, made some short speech, and therwith presented to his Majestie ane bason all of gold estimate to five thousand merks, wherein was shaken out of ane embroidered purse ane thousand golden double angells, as ane token of the toun of Edinburgh their love and humble service. The King looked glaidly upon the speech and the gift both, but the Marquess of Hamilton, Master of his Majestie's horse, hard besyde. midled with the gift, as due to him be virtue of his office. Therafter the provost went to his horse in good order, haveing ane rich sadell, with ane black velvet foot mantell with pasements of gold, and the rest of the furniture conforme, who, with the baillies and counsellors on their foot, attended his Maiestie." 10

"At his entry at the port of the Upper Bow, he had ane third speech. At the west end of the Tolbuith he saw the royall pedegree of the kings of Scotland, frae Fergus the First, delecately painted; and ther had ane fourth speech. At the Mercate Croce, he had ane fufth speich, where his Majestie's health was heartilie drunken by Bacchus on the Croce, and the haill stroups thereof running over with wine in aboundance. Att the Trone, Parnassus Hill was curiously erected, all grein with birks, where nyne prettie boys, representing the nyne nymphs or muses, was nymph like cled; wher he had the sixth speech, after the which the speaker delivered to his Majestie ane book. And seventhly, he had ane speech at the Nether Bow. Which haill orations his Majestie, with great pleasure and delyte, sitting on horseback, as his company did, heard pleasantly; syne rode doun the Canongate to his own Palace of Holyroodhouse, where he stayed that night. The provost with the rest returned home." 10

The orator on this occasion was the poet Drummond of Hawthornden. Perhaps the most interesting feature was a series of the chief works of Jameson, the famous Scottish painter with which the Nether Bow was adorned. This eminent artist, who had been a pupil of Reubens, and a

fellow-student of Van Dyke, continued to reside in Edinburgh until his death in 1644. He was buried in Greyfriars Church-yard, but without a monument, and tradition has failed to preserve any record of the spot.<sup>11</sup>

The whole exhibition cost the city of Edinburgh upwards

of 41,000 pounds Scots.

The following day being Sunday the King attended Divine Service in Holyroodhouse and rested. On Monday evening he went by coach, being followed by other sixteen coaches containing his retinue up the Royal Mile to the Castle where he supped and stayed the night. Early in the following morning there was assembled in the hall of the Castle the nobility of Scotland and other representatives. King addressed, and having received the homage of the estates of his nation and ancient kingdom they went to horse and rode from the Castle two by two in order. The Earls, Viscounts and Lyon King of Arms having their crowns and capes carried by gentlemen on the left side of their horse hard by their stirrup. Having reached the Abbey, the King was conducted to his throne and thereafter there was carried through the complete and elaborate ceremony that accompanies the coronation of a British Monarch.

Sir James Balfour, Lyon King of Arms, who was largely responsible for the arrangements of the ceremony, has carefully recorded it in full detail.<sup>12</sup>

"The Memorable and soleme Coronatione of King Charles, crouned King of Scotland, at Holyrudhousse, the 18 of Junij 1633.

In the abey churche, neir adiacent to the Kings palace of Holyrudhousse, in the midle of the same wes ther a stage sett upe, made square, of 24 footes in lenthe, and als much in bredthe, fastned to foure pillars of the churche, railled aboute, and couered with carpetts.

The stage wes made aboute 4 footte heighe from the ground, hauing in the midle, towards the west, a large gaite, with 3 stepes to ascend; and towardes the east, als maney to discend to the communione table, wich wes decently deckt."

He was crowned, annointed, girt with the Sword of State, the Royal Sceptre was placed in his hand and he was bespurred.

The order of procedure and the ceremony that followed

closely corresponds with that carried out at the coronation of our king, King George VI., last summer.

As they entered the church they were received by the clergy, headed by the Archbishop of St Andrews; the Crown, Sceptre, Sword and Spurs with the sacred oil in a golden ampoule were set forth. The full and elaborate ceremony of the coronation was then gone through, occupying many hours, after which the King with the crown on his head and sceptre in his hand returned with his whole train to his palace.

It is a safe assumption that Harvey was a witness of all these events, and six days later it is probable that he took a more prominent part in the ceremony then enacted which is recorded as follows <sup>13</sup>:—

"The 24 of Junij be St. Jhone Baptists day, his Majesty went to his chapell royall in stait, and ther made a soleme offertorey, and therafter touched aboute 100 persons that wer troubled with the Kings eiuell, putting about eurey one of ther neckes a pice of gold (coyned for the purpois) hung at a whyte silk riband."

During the short stay of fifteen days of the royal party in Edinburgh, Harvey made a journey to the Bass Rock to study there the comparative embryology which he was so keenly interested in. How he came to make this journey is not difficult to conjecture. The earliest known owners of the Isle were the Lauders of the Bass, who owned it in the fourteenth century and continued in possession up to the time of the King's visit. One of the thirty-one pensioners appointed to await his Majesty's downcoming to Scotland was Sir Philip Lauder, and it is not difficult to imagine that during their iourney north at one of their halting places, when William Harvey was in conversation with Sir Philip Lauder, Harvey may have led the conversation on to what he has described as "the production of eggs, their parts and their diversities," and told him how his former chief Fabricius was of the opinion that he was inclined to agree with Aristotle and Pliny, who affirm that the shell of the egg is not formed within the body of the fowl, but when the egg is laid, and in support of this he had stated that a simple experiment could be carried out, in his own words, "you will readily be satisfied if you have a fowl in the house, and dexterously catch the egg in your hand as it is dropping." "But," says Harvey, "Fabricius appears

to me to have wandered from the truth; nor was I ever so dexterous as to catch an egg in its exit and discover it in the state between soft and hard. And this I confidently assert, that the shell is formed internally, or in the uterus, and not otherwise than all the other parts of the egg, viz. by the peculiar plastic power. A statement which I make all the more confidently because I have seen a very small egg covered with a shell, contained within another larger egg, perfect in all respects and completely surrounded with a shell. An egg of this kind Fabricius calls an ovum centeninum; and our housewives ascribe it to the cock. This egg I showed to his serene Majesty, King Charles, my most gracious master, in the presence of many persons." <sup>14</sup>

Naturally, to a Lauder, bird life and birds' eggs would suggest at once the Bass Rock and its inhabitants, and he would be the first to tell Harvey about this wonderful island situated in the Constabulary of Haddington in the County of Edinburgh, so famed for its bird life.

The poet Dunbar wrote of this island:-

"The air was dirkit with the fowlis
That cam with yammeris and with yowlis,
With shrykking, screeking, skryming scowlis,
And meikle noyis and showtes."

Only a few years previously, in the year 1618, Taylor, in his "Pennyless Pilgrimage," tells us how for long the solan goose, which was obtained from the Bass, was considered a great delicacy and was a regular item at all Scottish banquets. Taylor tells us how it was eaten:

"Amongst our viands that we had there, I must not forget the soleand goose, a most delicate fowle, which breeds in great aboundance in a little rocke called the Basse, which stands two miles into the sea. It is very good flesh, but it is eaten in the forme as wee eate oysters, standing at a side-boord, a little before dinner, unsanctified without grace; and after it is eaten, it must be well liquored with two or three good rowses of sherrie or canarie sacke. The lord or owner of the Basse doth profit at the least two hundred pound yeerely by those geese." <sup>15</sup>

In his book on *The Generation of Animals*, Harvey tells us of his visit to the Bass. 16 He refers to it in his "Exercise N.S. IV., XLV. NO. XI. 773 3 H

the Eleventh" of the covering or shell of the egg. Herein the question at issue is the one I have already referred to, as to whether the shell of the egg is formed after it is laid, as Aristotle and Pliny would maintain, or within the body of the fowl, as Harvey believed.

He writes as follows,

"In the desert islands of the east coast of Scotland, such flights of almost every kind of sea-fowl congregate, that were I to state what I have heard from parties very worthy of credit I fear I should be held guilty of telling greater stories than they who have committed themselves in regard to the Scottish geese produced, as they say, from the fruits of certain trees that had fallen into the sea. These geese the narrators themselves had never seen so produced; but I will here relate that which I have myself witnessed.

"There is a small island which the Scots call The Bass Island (and speaking of this one will suffice for all), situated in the open ocean, not far from the shore, of the most abrupt and precipitous character, so that it rather resembles one huge rock or stone than an island, and, indeed, it is not more than a mile in circumference. The surface of this island in the months of May and June is almost completely covered with nests, eggs and young birds, so that you can scarce find free footing anywhere; and then such is the density of the flight of the old birds above, that like a cloud they darken the sun and the sky; and such the screaming and din that you can scarce hear the voice of one who addresses you. If you turn your eyes below, and from your lofty stance and precipice regard the sea, there you perceive on all sides around an infinite variety of different kinds of sea-fowl swimming about in pursuit of their prey: the face of the ocean is very like that of a pool in the spring season when it appears swarming with frogs; or to those sunny hills and cliffy mountains looked at from below that are covered with numerous flocks of sheep and goats. you sail round the island and look up, you see on every ledge and shelf and recess, innumerable flocks of birds of almost every size and order; more numerous than the stars that appear in the unclouded moonless sky; and if you regard the flights that incessantly come and go you may imagine that it is a mightly swarm of bees you have before you. I should scarcely be credited did I name the revenue which was annually

derived from the feathers, the eggs, and the old nests, which, as useful for firing, are all made objects of traffic by the proprietor, the sum he mentioned to me exceeds credibility. There was this particular feature which, as it refers to our subject, I shall mention, and also as it bears me out in my report of the multitudes of sea-fowl; the whole island appears of a brilliant white colour to those who approach it—all the cliffs look as if they consisted of the whitest chalk; the true colour of the rock, however, is dusky and black. It is a friable white crust that is spread over all, which gives the island its whiteness and splendour, a crust, having the same consistency, colour and nature as an egg-shell, which plasters everything with a hard, friable and testaceous kind of covering.

"Among the many different kinds of birds which seek the Bass Island for the sake of laying and incubating their eggs, and which have such variety of nests, one bird was pointed out to me which lays but one egg, and this it places upon the point of a rock, with nothing like a nest or bed beneath it, yet so firmly that the mother can go and return without injury to it; but if any one move it from its place, by no art can it be fixed or balanced again; left at liberty, it straightaway rolls off and falls into the sea. The place, as I have said, is crusted with a white cement, and the egg, when laid, is bedewed with a thick and viscid moisture, which, setting speedily, the egg is soldered as it were, or agglutinated to the subjacent rock."

The Scottish Ornithologists' Club is mainly concerned with the observation of bird life in the Isle of May and the Bass Rock. I therefore sought the opinion of their secretary, my friend, Mr George Waterston, a leading authority on bird life. He writes to me as follows:—

"In answer to your enquiry about Harvey's reference to the birds nesting on the Bass Rock, I feel certain that in this instance the bird referred to was the Common Guillemot— 'Uria triole,' a bird which lays its egg on bare ledges on the cliff faces of the Bass. The interesting point about this egg is that Nature has endowed it with a pyriform shape which prevents it from rolling off the ledge.

"The ledges on which these birds nest soon become saturated with the birds' droppings and consequently sticky as a result. As far as I am aware, however, the egg is quite smooth and has

no 'thick and viscid moisture' adhering to it.

"You will notice, however, that in the text, the information is second-hand, and that these notes were *not* compiled from actual observations taken by Harvey himself. My opinion is that he was in this instance mis-informed."

On Monday, 1st July, after a stay of fifteen days in Edinburgh, King Charles set out on a tour in the north, visiting Linlithgow, Stirling and Dunfermline, the place of his birth, where he spent the night of Thursday, 4th July. Journeying on the following day to Falkland, he stayed there five days, returning to Edinburgh on Wednesday, 10th July. When crossing the Forth disaster overtook the party, which Spalding records as follows <sup>17</sup>:—

"Monday, the first of Jully, the king dyned in the Abbay, syne past to sport to recreat himself, to Linlithgow, Dunfermling and Falkland, and came back to Bruntisland, shipped, came over the watter, and saiffely lodged in the Abbay that night. But, as he is on the watter, in his own sight, ther perished ane boatt following after him, haveing within her about 35 persons, of English and Scotts, his own domestick servants, and two only escaped with their lives. His Majestie's silver plate and household stuff perished with the rest; a pitifull sight no doubt to the king and the haill beholders; whereof the like was never sein, ane boat to perish betuixt Bruntisland and Leith, in ane fair summer's day, but storm of weather, being the 10th day of July; but it foretokened great troubles to fall in betuixt the king and his subjects, as after doe appear."

What were the doctors of Edinburgh doing during these times? I have sought for information in the Records of the Royal College of Surgeons, and I find Jon Spand, Deakin, the quartermaisteris, the keeper of the kie of the kist, the keeper of the Box and the freemen and maisters of the surgeons and the barbers craft, in other words, the President, the Vice-President, the Treasurer, the Secretary and Fellows of the Royal College of Surgeons of that day acquitted themselves in a manner I am proud to relate.

Miss Jean Caird, who is an expert in Old Scots calligraphy, has transcribed the Minutes of the Royal College of Surgeons for the year 1633. These minutes of the Meetings of the Freemen and Maisters of the Surgeons and Barbers Craft for

this year begin on the 26th day of February 1633. They deal with much that is of intense interest, which I must pass over, until we come to the Meeting of the Craft on the 10th July 1633. I would ask you to note the date as the Wednesday on which the King returned from his short tour in the north, and I would also remind you again that the medical staff that were appointed to wait on his Majesty's downcoming to Scotland and journeying with him were: Physicians, Doctor Bettone and Dr Heruay; Chirurgians, Seriant Clowes, Michaell Andrews; Apothecary, Mr. Jo. Volffe Romler; Barber, Mr. Tho. Caldwell.

"Tent day of July 1633.

The Quhilk day the deakin and burgesses of the chyrurgeons all with ane consent hes admittit and be these presents admittis Michell Andro now present chyrurgeoun to his majestie and sum tyme prentice to umquhile James Kinloch chyrurgeon\* Ane freman and maister of the chyrurgeons and barbour craft in and amangis them. And that frely without payment of any money therefoir lykas he maid faith conforme to the order. Quhereupon this act is maid.

D. GIBSONE.

" eod die

"James Suricht servitour to the said Michell Andro is bukit prenteiss to him conforme to identour passed betuix them or befoire.

"Tualoff July 1633.

"The quhilk day the deakin and utheris of the chyrurgeons being convenit all with ane consent hes admittit and be these presents admittis Thomas Caldwell barbour to his majestie squiryre and ane of his majesties specially grumis. Ane freman and maister of the chyrurgeouns and barbour craft in and amangis thame and that frelie without payment of anie money therefoir lykas he maid faith conforme to the order Quhereupon this act is maid.

D. GIBSONE.

" eod die

"The quhilk day James Suricht be consent of the deakin and bretherine at the earnest request of Michell Andro his

\* James Kinloch was President of the Royal College of Surgeons in 1606, 1608 and 1619.

maister admittit. Ane freman and maister of the chyrurgeons and barbour craft in and amangis thame and that frelie without payment of any mony therefoir likas he maid faith conforme to the order. Quhereupon this act is maid.

D. GIBSONE."

Herein we have recorded the award of the Fellowship without examination and without fee to three members of the medical staff of the royal household, these being Harvey's three surgical colleagues.

Miss Jean Caird has searched the Minutes of the Royal College of Surgeons prior to this event, and it would appear that there is no precedent to this action, establishing the fact that the Honorary Fellowship of the Royal College of Surgeons was first awarded in 1633 on the occasion of King Charles's visit to Edinburgh.

The Royal College of Physicians was not in a position to confer a like honour on Dr Harvey, as it was not then in existence.

Harvey, however, did not leave Edinburgh without public recognition.

It is recorded that on Sunday, 23rd June, the King came by coach from the Abbey to St Giles Kirk, and there heard John, Bishop of Murray, preach in garments, of which the populace disapproved—" they wer greived and grudged therat, thinking the samen smelled of popery."

"After sermon, the toun of Edinburgh gave the king the banquet, whilk, in ane dyning room, they had prepared in sumptuous and costly manner, whereby no sermon was throw all the toun churches. After dinner, he went be coach, weill convoyed back to the Abbay." 18

At the banquet the City of Edinburgh conferred the honour of the Freedom of the City on William Harvey and several others.

It is recorded in the locked book of the city. In the Minutes for 23rd June it is mentioned

"Followis the burgesses maid at his majesties banquet:—... Mr. John Dyer, gentleman pensionar, Thomas Nevyne: Mr. Thomas Asburn, gentleman pensionar; David Beattoune, doctor of Physick to his majestie; William Clowes, Serjeant, Chyrurgeoune to his majestie; Arthur Johnston, doctor to his majestie; Michaell Andro, chyrurgeon to his majestie;

Thomas Howison, master of the quenis robes; Thomas Caldwell, barber; John Black, servitour to Mr. Caldwell . . . George Abercrombie, gentleman pensionar; Patrick Abercrombie, gentleman pensionar; William Hervye, doctor of physicke to his majesty. . . . Thomas Tailyour, one off the wardrobe; James Sevricht, chyrurgeone. . . . Mr. John Porteous, professor of Physick."

With certain of these names you are already familiar, Beattoune, the physician, Serjeant Clowes and Michaell Andro, Surgeons Thomas Caldwell, barber, and James Suricht, surgeon and assistant to Michaell Andro, and William Harvey.

It would appear that John Wolff Rommeler, the apothecary, who was a member of his Majesty's entourage, is really John Wolff, the same who came up with King James in 1617, when he was made a burgess at a banquet then held on 27th June.

With reference to Arthur Johnston, Physician to His Majesty, whose name appears on our list for the first time, Dr Robert Thin has given me a very interesting piece of information. He describes him as Dr Arthur Johnston, Physician to the King, and mentions how he was best known for his Latin poems and his translation of the Psalms into Latin, which have gained the praise of many distinguished Latin scholars.

Eight days after his return to Edinburgh the King set forth to the south by way of Dalkeith, Settone, Innerwick and Berwick, "And from thence his maiestie, with some 30 or 40 of his most necessar seruants, went poste to Greinewitch, quher the Queine lay." And with him went William Harvey, the trusted and faithful physician.

In the year 1641, King Charles again came north and visited Edinburgh. The rumblings of the approaching rebellion were now audible. Strafford, his greatest and ablest servant, had been sacrificed to save the nation from civil war. In this sultry atmosphere Charles, grasping at the illusion that a certain reaction in his favour had taken place in Scotland, came north, and with him again came William Harvey, his private physician. Dr W. C. Souter, in his article on "Dr William Harvey and Aberdeen," <sup>19</sup> mentions how in the Burgess Roll of the City of Aberdeen there is an entry as follows:—

"On 30th August 1641, in presence of the baillies and the dean of guild, on the same day the honourable gentlemen, the

learned William Hervye, Physician to the King, Adrian Mitcalff, Apothecary to the King, and Mr Alexander Midletun, subprincipal of King's College, Aberdeen, were received and admitted as free burgesses and brethren of guild of the Burgh of Aberdeen by grace of the Magistrates and Council of the same, each of them having paid five shillings in a white purse, as is the custom, and having taken the customary oath."

The explanation of how Harvey came to visit the city is a matter of conjecture. Dr Souter argues that it was in connection with the union of Aberdeen's two colleges to form the new Caroline University—one of King Charles I.'s good turns done for Aberdeen because of its having suffered and bled for the Royalist cause. (The Royal Assent to this union was signed at Holyrood on 8th November 1641.) That it partook of an official character is evident in the honour conferred. It is safe to assume that it was to serve the interests of his master, the King, that he came to the City of Aberdeen, famed then as ever for its loyal devotion to the Royal Cause.

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