

SIR KENELME DIGBY, DIPLO- MATIST AND DILETTANTE

ALBERT G. NICHOLLS

Professor of Pathology, Dalhousie University

THERE lies before me, as I write, an ancient tome, jacketted in familiar brown calf that shows somewhat the ravages of time. It is a folio of some four hundred and sixty pages, printed in 1644 at Paris by Gilles Blaizot, "With Priviledge". The title is: *Two Treatises in the one of which the Nature of Bodies: in the other, the Nature of mans Soule; is looked into: in way of Discovery, of the Immortality of Reasonable Soules.* The name of the author does not appear upon the title-page, but the dedication "To my Sonne" is signed "Kenelme Digby". After the preface come several "approbationes" signed by certain Doctors of Divinity of the University of Paris, in which the work is commended and the orthodoxy of the author is vouched for. At the end is the "Privilege du Roy," running, *Lovys par la grace de Dieu Roy de France et de Navarre, a nos amez and feaux les gens tenans nos Cours de Parlemens, Baillifs, Seneschaux, Preuosts, leurs Lieutenans, and tous autres nos Justiciers & Officiers qu'il appartiendra, Salut, etc., etc., signed Gvitonneau* and dated September twenty-sixth, 1644. This is the editio princeps of a remarkable book, and dear, therefore, to the soul of the bibliophile.

Who and what manner of man was this Kenelme Digby? The latter part of the question has called forth some widely differing answers, and this fact, together with many interesting side-lights of a historical, literary, and scientific character, has suggested this slight sketch.

Of good family, well-educated, widely-travelled, knighted by King James the First, Gentleman of the Bedchamber to Prince Charles, Chancellor to a Queen, the confidant of Cromwell, a friend of scholars, Digby was undoubtedly an outstanding figure. Yet Evelyn, who knew him well, calls him "an errant mountebank." Alexander Ross in *Medicus Medicatus*, Nathaniel Highmore in his *History of Generation*, and Henry Stubbes in the *Animadversions upon Glanvil*, attacked his philosophical views. Stubbes, indeed, called him "the very Pliny of our age for lying." Lady Fanshawe

refers to Digby's "infirmity" of lying about his scientific experiments, though "otherwise he was a person of excellent parts and a very fine-bred gentleman." Butler has many sarcastic things to say of him in *Hudibras* and *The Elephant and the Moon*. Truth to say, he appears to have been somewhat of a time-server. He changed his religion more than once. In all essentials a cavalier, for a time he served the Commonwealth. He was punished by both parties. Small wonder, therefore, that he had enemies of differing stripes, and probably less than justice has been meted out to him. Again, one should not forget the "calamity" of the times in which he lived. England was a seething cauldron of mutual rivalries and discontent. To oppose those in power might cost one's life. To make an incautious remark meant the pillory and, perhaps, the loss of one's ears. And yet the *kakoethes loquendi* was excelled only by the *kakoethes scribendi*. Invective took the place of argument, and, if words had been bludgeons, few even among the greatest would have escaped a cracked pate. That Digby, under such conditions, could have attained any lasting eminence, whether in politics, philosophy, or literature, and in the end die in his bed, is, of itself, proof of great natural ability.

The England of Spenser, Sir Philip Sydney, Shakespeare, Marlow, Bacon, of Drake, Hawkins, and Frobisher, was rapidly passing away.

With the accession of James VI of Scotland to the throne of England the stage was set for a new act in the political drama. Men began to quarrel with one another in earnest on matters of religion, and with the Crown on prerogative. Elizabeth was as absolute in theory as any Tudor that had preceded her, but she knew when to yield. The Stuart sovereigns did not. Macaulay says that had James been a capable ruler he would have ruined his country. As it was, his son lost his head, and the doctrine of the divine right of kings went into the discard. James came to the English throne in 1603, and in the same year, June 11th. (some say July 11th.) our hero was born. His early life was clouded with a great, if romantic, sadness. When he was three years old, his father, Sir Everard Digby, was executed for complicity in the Gunpowder Plot, and was "hanged, drawn, and quartered" at the west end of Old St. Paul's, according to the genial custom of the time. When this tragic event occurred, Kenelme, with his only brother John, who also attained in after life great eminence, was with the mother at her ancestral estate at Gothurst in Buckinghamshire. Lady Digby was suspected to be of "Popish belief", so her eldest boy, Kenelme, was taken from her to be trained in the new or Protestant

faith, and placed under the care and tuition of Laud, the then Dean of Gloucester, afterwards the famous and ill-starred Archbishop. In his fifteenth year he was entered at Gloucester Hall, Oxford, now Worcester College, and studied under Thomas Allen, a renowned mathematician and astrologer. He remained at Oxford somewhat less than three years, where he aroused the admiration of his tutor and fellow students by his attainments. Then, apparently without taking a degree, he set out upon the grand tour, visiting France, Spain, and Italy. He became "italianated", as the phrase went; not "germanised", as was the custom three centuries later. Soon after his return home, accomplished in all the knowledge of his time, he was introduced to King James, who, forgetting the delinquencies of the father in his admiration for the son, conferred on him the honour of knighthood. It is related that when the blinking, rheumy king was about to confer the accolade, his face averted from a constitutional dread of the steel, he nearly poked out Digby's eye, and would have done so, but for the Duke of Buckingham who guided the blade to its proper destination. King James died in 1625, and the new king, Charles, who had met Digby on the famous trip with Buckingham to Madrid, and had given him a post in his household, retaining the young knight in his favour, appointed him a gentleman of the bedchamber, a commissioner of the navy, and a governor of Trinity. In this year, also, Digby was married to Venetia Anastasia, daughter of Sir Edward Stanley of Tonge Castle, Shropshire,— "A lady of extraordinary beauty, and of as extraordinary fame" (Lord Clarendon). Though they had a somewhat stormy courtship, they were sincerely attached to each other. Being urged by the Earl of Bristol to undertake "some generous action", he set sail in 1628 in command of a small fleet, practically as a privateersman, for he failed in obtaining full authority under the Great Seal, with the purpose of chastising the Venetians. On his way out he rescued a large number of English slaves at Algiers, and finding the Venetian galleons in the Bay of Scanderoon, inflicted upon them a signal defeat. He returned a famous man. In the midst of these activities, it may be noted, he found time to visit Melos, Delos, and Micino in search of antiquities.

Hitherto known chiefly as a man of affairs, he now turned his attention to literature, philosophy, and science, making the acquaintance of such men as William Harvey, Ben Jonson, René Descartes, John Evelyn, and Edward Hyde, Earl of Clarendon. The last-named has described Digby as exceptionally handsome, with "a winning voice, a flowing courtesy and civility, and such a volubility of language as surprised and delighted." His old Oxford

tutor, Allen, who admiringly compared him to the famous Pico Mirandola, dying in 1632, bequeathed him his library. Among the books was a wonderful collection of mediaeval manuscripts, some two hundred and seventy-seven in all, thirty-six of which were in Hebrew and Arabic. Some regret having been expressed that these treasures should have been lost to the University, Digby with rare generosity presented them to the Bodleian Library where they now repose.

Lady Digby died in 1633, and was buried in Christ Church, Cheapside, where her sorrowing husband raised an elaborate tomb in her honour. She seems to have been greatly esteemed, for many striking literary tributes were paid to her on her death, notably one by Ben Jonson who wrote a fine series of poems in her praise, which he called "Eupheme" and dedicated to Sir Kenelme. I shall quote one stanza:—

"Twere time that I dyed too, now she is dead,
Who was my Muse and life of all I said:
The spirit that I wrote with, and conceived:
All that was good or great with me, she weav'd."

His wife's death made a great impression on Digby, and he now began to ponder on things of religion about which until now he seems not to have greatly concerned himself, being yet under the spell of Laud's persuasive influence. He went to Paris about the year 1634, and, while there, took up the study of the Protestant movement and the disruption of the Church of Rome. The result was that he returned to the faith of his father, into which he had been born, and the principles of which had doubtless been instilled into his mind during his earliest years. He subsequently published a sort of *Apologia pro vita sua*, entitled "A Conference with a lady about the Choice of a Religion", in which he defended his action with candour and moderation, holding that a church, to give assurance of salvation to its members, must speak with authority, though permitting a certain liberty of opinion on minor matters. His friend Laud, now Archbishop of Canterbury, argued with him in vain, at least at this time, and, indeed, with little hope of altering his decision.

Returning to England at the end of 1638, Digby, at the instigation of Queen Henrietta Maria, one of the greatest woman-plotters that ever lived, associated himself with Sir Walter Montague and other Royalists in an attempt to raise a subscription army from the Roman Catholic party to aid the king in the troubles which were coming thick and fast upon him. So far as money went the

plan met with some success, but it was far otherwise politically. The country just then was overwhelmingly puritan at heart, and was, moreover, resolved that neither King nor Pope should take toll within its bounds. The army, thus raised, was nicknamed the "Popish Army", about as damning a name as could have been given it at that time. The Parliament took fright and seized Sir Kenelme as one of the leaders of a force that might soon be arrayed against itself. Apparently the committee that examined him were struck with the honesty and candour of the man. He told them straightforwardly what he had done, why he had done it, what he hoped for, and for a time he went scot-free. But, as soon as the Civil War broke out in earnest, the House of Commons at the suggestion of the Lord Mayor of London ordered him to be imprisoned. The Sergeant-at-Arms at first confined him in "The Three Tobacco Pipes", a tavern near Charing Cross, where Sir Basil Brooke and Sir Roger Twysden were his companions, and his charming conversation made the prison "a place of delight." Later he was detained in Winchester House. He was liberated on the request of the Queen Dowager of France, communicated to the Parliament by the Sieur de Gressy, on the following undertaking:—

"Whereas, upon the mediation of her Majesty the Queen of France, it hath pleased both Houses of Parliament to permit me to go into that kingdom, in humble acknowledgment of their favour therein, and to observe and confirm a good opinion of my zeal and honest intentions to the honour and welfare of my country, I do here, upon the faith of a Christian and the word of a gentleman, protest and promise that I will neither directly nor indirectly negotiate, promote, consent unto, or conceal any practice or design prejudicial to the honour or safety of the Parliament. And in witness of my reality herein, I have hereunto subscribed my name this third day of August, 1643.

KENELME DIGBY."

This "Deed of Honour" is characteristic of the man and of the times in which he lived.

While Digby was in confinement a remarkable book made its appearance, which soon became the talk of the literary town. This was the *Religio Medici* of Sir Thomas Browne. Digby's friend, the Earl of Dorset, besought him to read it, and he sent post-haste to the publisher Mr. Crook, St. Paul's Churchyard, to procure a copy. He then wrote within twenty-four hours a critique, from a Romanist point of view, upon the work, entitled "Observations upon *Religio Medici*, occasionally written by Sir Kenelme Digby, Knt." (London, 1643.) Possibly it was too hastily done, but yet with

signal ability. Dr. Browne felt somewhat aggrieved and wrote a courteous letter to Digby, in which he complains that his work, which had been contrived in his study, and as an exercise unto himself, had been committed to the press without his assent or privacy, and had been issued in a garbled form. He further states his intention of delivering within a few weeks the true and intended original. Digby, in an equally courteous reply, assures Dr. Browne that on the receipt of his letter he sent to the printer to forbid any farther proceeding therein. He states that his notes, hastily set down, do not merit the press, and appears to think that what was in the press, to which Dr. Browne objects, must be from some pen other than his; for his exercitation was undertaken as an entertainment, wherein the liberty that he took is to be attributed to the security of a private letter. He concludes:—

“With longing I expect the coming abroad of the true copy of that book, whose false and stolen one hath already given me so much delight. And so, assuring you I shall deem it a great good fortune to deserve your favour and friendship, I kiss your hand and rest

Your most humble Servant,

KENELME DIGBY.

Apparently, the “leak” was with Lord Dorset. The “copy” was too good, for neither Browne’s remonstrance, nor Digby’s express instructions availed to prevent its publication. The incident, however, had its use, in that, shortly after, an authoritative copy of the *Religio* appeared with Browne’s imprimatur, in which, along with some corrections and emendations, the author took occasion to “tone down” his previously expressed ideas. It could very well be that the author might tremble for the fate of his treatise intended merely as a private exercitation, a philosophical *tour de force* leading sometimes to a *reductio ad absurdum*, sometimes nowhere, when exposed to the chill atmosphere of criticism. When he did put his name to it, he confessed that there were many things in it “to be taken in a soft and flexible sense, and not to be submitted under the rigid test of reason.” The book was and is somewhat of an enigma. It depicts the age-worn struggle between reason and faith in the mind and heart of a devout Christian, in whom science had struck a spark that would not go out and yet had not vigour enough to burst into flame. But so uncertain is the outcome, that Browne was called a Romanist, a Protestant, an atheist, a deist, and what not. The book was placed upon the Index. The Sectaries denounced it as dangerous. Several things

may explain its charm, apart from its problem. Its very title was striking, at a time when physicians were supposed to have no religion. "Tres medici, duo athei" was a common saying. Then, the style of the book was novel. It is a poem from beginning to end. Finally, it is steeped in the personality of its author. No wonder it appealed to such a man as Digby. It was to him an intellectual feast. When reason puzzled him, Browne was content to lose himself in a mystery, even up to an "O altitudo": and when in the name of reason the devil ensnared him, he took refuge in the paradox of Tertullian, "Certum est, quia impossibile est." Of such a man, Digby, the convinced Romanist, might easily have hoped that he would see the light. And yet it is singular, as I think a perusal of Digby's *Observations* will clearly show, that Digby is the more rationalistic of the two. To cite but one example: Digby says, "Surely this acute author's sharp wit, had he orderly applied his studies that way, would have been able to satisfy himself with less labour, and others with more plenitude, than it hath been the lot of so dull a brain as mine, concerning the immortality of the soul. And yet, I assure you, my lord, the little philosophy that is allowed me for my share demonstrateth this proposition to me as well as faith delivereth it, which our physician will not admit in his." It would be as interesting as it would be illuminating to take up in detail Digby's animadversions on Browne's work, but space does not permit. Digby crosses swords with him on predestination, his preference for the reformed faith, his views on astrology and witchcraft, his conception of light, his determination to shut up his books. Some of the criticisms are unfair, in that they concern statements which are garbled expressions of Browne's real views; others again show that Digby had in some instances mistaken Browne's drift, probably because of the haste with which he had perused the book. On the whole, however, Digby is appreciative and sympathetic. He says of Browne, "Upon every occasion he showeth strong parts, and a vigorous brain. His wishes and aims, and what he pointeth at, speak him owner of a noble and generous heart."

One other literary effort was published by Digby about the time he left England for France, his *Observations on the Twenty-second Stanza of the Ninth Canto of the Second Book of Spenser's Faery Queen*, a mysterious passage which he had discussed with his shipmate Sir Edward Stradling on their Mediterranean expedition. Before he was permitted to leave, however, he was called up and questioned by a committee of the Commons anent the conduct of his old friend and mentor, Archbishop Laud. Rightly or wrongly,

Laud was suspected of having leanings towards Rome. It was the common belief that he had been offered a Cardinal's hat on condition of his conversion and the restoration of the Roman Church in Britain. Digby's evidence was all in favour of the suspected prelate. He stated that he knew nothing whatever about the supposed intrigue, and that he believed the Archbishop to be a convinced Protestant. It argues much in favour of Digby, as being a man of probity, that his evidence was taken at its face value, though he was himself a recanter and had suffered at the hands of the Parliament.

Digby left for France, where he remained until the victory of the Parliament over the king became complete. During his exile, he whiled away his time writing, experimenting, and plotting. He became the friend of the distinguished René Descartes, with whom he frequently conferred on things philosophical. The first interview of these two celebrated men is recorded by Desmaizeaux. It is narrated that Descartes did not at once reveal his identity to his visitor, but opened a conversation with him on some philosophical questions upon which Digby had written. Then he said, "I do not doubt you are the famous Sir Kenelme Digby," to which the latter rejoined, "And if you, sir, were not the illustrious M. Descartes, I should not have come here for the purpose of seeing you." The two men had much in common. They were both interested in scientific research. They were both inclined to metaphysics. This is merely to say that with a love for physical facts they combined the poetic temperament. Much might be written about the place of the imagination in scientific research.

In 1644 appeared Digby's *magnum opus*, the two treatises or *Bodies and on Man's Soul*. This was written partly as a relief against the distresses under which he himself was labouring, and partly for the instruction and improvement of his beloved son. Digby was an Aristotelian, and to some extent muddled with the subtleties of the schoolmen, so that his book is, for us, somewhat heavy reading. The headings of his chapters will give some idea of the plan of the book, and the variety of the subjects upon which he descants. In the first treatise:—

"Quantity : rarity : density : elements : light : local motion
gravity and levity : reflection : modulation : refraction : composition, qualities and generation of mixed bodies : rarefaction
condensation : attraction : filtration : restitution : electric attraction : loadstone attraction : plants and animals, and how they are formed in common to perform vital motion : the generation of animals : figures of plants and animals : beginning of motion in living bodies : the motion of the heart : the circulation

the blood : nutrition : augmentation : corruption and death, the motions of sense, such as touch, taste, smelling, hearing, sight, colours: sensation: memory: voluntary motion: the passions: the material instruments of knowledge and passion : pain and pleasure : the reasoning of beasts : and the docility of some irrational animals.

In the second treatise:—

“Of simple apprehensions : of thinking and knowing : of discoursing : how a man proceedeth to action : containing proofs out of our single apprehensions that our soule is incorporeall : containing proofes of our soules operations in knowing or deeming of anything, that she is of a spirituall nature : that our discoursing doth proove our soule to be incorporeall; containing proofes out of our manner of proceeding to action that our soule is incorporeall : that our soule is a substance and immortall : declaring what the soule of a man, separated from his body, is, and of her knowledge and manner of working : showing what effects the divers manners of living in this world do cause in a soule, after she is separate from her body : of the perseverance of a soule, in the state she findeth herselfe in, at her first separation from the body.

As a sample of his method, I quote his argument that the soul is a substance.

“Having concluded that our soule is immateriall and indivisible : to proceed one steppe further, it can not be denyed, but that it is eyther a substance or an accident : if the later, it must be the nature of the substance whose accident it is : for so we see all accidents are : but in man when his soule is excluded, there is no spirituall substance at all, whereof we have any notice : and therefore if it be an accident, it must be a corporeall accident, or some accident of a body: as some fibure, temperature, harmony, or the like: and consequently, it must be divisible: but this is contrary to what is proved in the former Chapters : and therefore it can not be a corporeall accident. Neyther can it be a spirituall accident : for unto what spirituall substance should it belong, when as nothing in man can be suspected to be spirituall, but it selfe. Seeing then that it can be no accident, a substance it must be, and must have its *existence* or *being* in it selfe.”

It is singular that while our author comes to the most orthodox conclusions in regard to the immortality of the soul, he makes no reference, even indirect, to Christianity and the dogma of the Church. In this his method is entirely rationalistic. His philosophical arguments evidence frequently the influence of his intimate friend Thomas White, the English sub-rector of the College of Douay, whom he often quotes with admiration, and whose latitudinarian views eventually brought him under the ban of the church.

There are several matters of medical interest taken up in Digby's *Treatise on Bodies*. Now Digby never took a medical degree, nor was he directly connected with the profession or practice of the medical art. Yet he was looked upon as learned in physic. Doubtless his taste ran that way, and so he dabbled, as Celsus did, in the theory of Medicine as a necessary and important part of the study of philosophy.

There is a curious description of the phenomena of magnetism, in which William Gilbert and William Harvey are regarded as the two greatest lights in the philosophy of their age, and this leads up to the consideration of the two kinds of living creatures, plants and animals, and how they are adapted to perform vital motion. Plants are one continuous substance, wherein we observe one and the same line of progress throughout, from the highest to the lowest part, so that the operation of one part is not at all different from that of another, but the whole body seems to be the course and thoroughfare of one constant action, varying itself on divers occasions and occurrences according to the disposition of the subject. Animals differ from this in that their parts are notably separated the one from the other, and each of them has such a peculiar and proper notion that one might conceive that they were every one of them a totally distinct and complete thing by itself, and that all of them were artificially tied together, were it not that the subordination of these parts to one another is so great, and the correspondence between them so strict, as plainly convinces that the compound of all these parts must needs be one individual thing. He illustrates what he means by a reference to two machines which he saw at work when in Spain. The engines were operated by water, and one of them performed one kind of work only: the other, "a multitude of engines," flattened an ingot of silver into a plate, delivered the plate it had made to another part to be stamped out as a coin, and passed it to a third, to be cut into the proper size. Both machines derived their power from the same source, water, but one was like a plant, the other like an animal. Digby notes, in his consideration of the generation and development of animals, that the heart is the first part to be formed in the embryo. This is a correct observation, where one has not the advantage of a high-power microscope.

Some striking passages occur in regard to the cause of the motion of the heart, and here Sir Kenelme accepts, in general, the teaching of the admirable Harvey, as opposed to Descartes. The latter had a curious notion about the circulation. He thought that the blood was forced out of the cavity of the heart into the arterial

passages by the pressure of steam generated from the blood within the ventricles. Digby counters this by objecting that the heart has a power of motion in itself, that could be observed in reptiles long after death and when all blood is removed from it. Though he did not look upon the heart as a muscle, he clearly saw that it acts after the fashion of a muscle, and that it obeys the law of contracting when it is full of blood, by virtue of its own contractive power and independently of any force generated in it by the blood. At the same time, he felt that the power of the heart is supplied by blood, and he is said to have been the first to assert that the heart is made of different sets of fibres. The varying arrangements of these fibres gave, he thought, an independent motion to the systole and the diastole. He ventured to disagree with the great Harvey himself on the nature of the diastole, which is not a mere "relenting from motion", as Harvey taught, "but is a complete motion, and in a manner greater than the systolic contraction, though less sensible." This is the view we teach to-day. His chapter on the senses is learned and often suggestive. Digby knew that the senses of taste and smell were due to the impressions of fine particles, that hearing was due to waves in air. He experimented on himself by lying under water, in order to discover how far waves in air above the water could produce waves in the water, which, being transmitted to his tympanum, would induce sound. He had a good appreciation of the laws of optics and the sense of sight. A very interesting portion of his work is where he shows how one sense may supply the lack of another. A Spanish nobleman, brother of the Constable of Castile, was born absolutely deaf, so deaf that if a gun were discharged close to his ear he would be unable to hear it. Consequently, he was dumb, for, not being able to hear the sound of words, he could never imitate nor understand them. At last a priest, John Paul Bonet by name, who deserves to be everlastingly remembered, undertook to teach him to understand others when they spoke, and to speak himself so that others might understand him : "and what at first he (the priest) was laughed at for, made him, after some years, be looked upon as if he had wrought a miracle. In a word, after strong patience he brought the young lord to speak as distinctly as any man whosoever, and to understand so perfectly what others said that he would not lose a word in a whole day's conversation." We call this wonderful art "lip-reading". Digby calls it "hearing by the eyes."

The priest referred to wrote a book on the subject, and was alive when Digby was in Spain with the Prince of Wales (later Charles I), and both the prince and Digby saw the man who had

been made to talk. They noted about his voice that, "not hearing the sound he made when he spoke, he could not steadily govern the pitch of his voice, but it would be sometimes higher, sometimes lower, though, for the most part, what he delivered together he ended in the same key as he began." The young nobleman read by the motions he observed alone: he could say words after a speaker when Digby, standing by his side, could not hear them. "But if he were in the dark, or if one turned his face out of his sight, he was capable of nothing one said."

Early in his exile Sir Kenelme was appointed Chancellor to Queen Henrietta Maria, and was sent to Rome by the Catholic committee, sitting in Paris, to get funds from the Curia for the purpose of raising a Catholic army in Ireland to assist the king. In this he was successful, but eventually dissension arose with Rinuccini the papal envoy, and later attempts to get money from Rome proved failures. Digby seems to have gradually become discredited, and indeed was accused of appropriating some of the funds he had collected for his personal use. The truth of this charge has not, so far as I know, ever been established. In 1649 he suddenly returned to England, was denounced as dangerous, and declining to explain his actions, was banished for the second time. He seems now to have taken up his laboratory work again, being interested specially in the old problem of the transmutation of metals. In 1651 he was visited by Evelyn, who saw some of his experiments, and attended with him Febur's chemical lectures. About three years later he was permitted to return to England on his promising to do nothing prejudicial to the government, and paid a return visit to Evelyn at Wotton.

His subsequent political career is somewhat of an enigma, but must be passed over briefly. It is curious that he became the confidential agent of Cromwell, and acted as his envoy in some delicate negotiations on the continent, and this apparently without forfeiting the confidence of Queen Henrietta Maria and the Catholic party. His action in this may perhaps be accounted for to some extent by necessity, for on his way to England he told a physician at Rouen, called Wisden, that unless he recognized the existing government he must starve. At the same time, a letter of his is extant in which he approves of certain policies of the Parliament. For his complaisance Digby was roundly denounced by Holles in "A letter from a true and lawful member of Parliament" (1656), and by Prynne in his "True and Perfect Narrative", (1659.) At the Restoration Digby seems to have remained in favour with the powers. He was placed on the Council of the newly-

founded Royal Society. He lectured at Gresham College on the vegetation of plants. But in 1664 he was forbidden the Court.

Some reference should now be made to a matter which, perhaps more than any other, contributed to his notoriety. This is the famous "weapon salve," or "powder of sympathy," used for the cure of wounds. The cure of injuries by "sympathy" was not a new idea. Very similar was the Unguentum Armarium or Weapon Salve, known to Fabricius Hildanus and to Francis Bacon. Its composition was complicated and not always uniform, but some ingredient which appealed to the imagination was always present, such as bits of mummy, human blood, or moss from the skull of a thief hung in chains. Instead of being applied to the wound, it was applied to the weapon causing the injury. If the actual weapon were not forthcoming, a wooden imitation of it would do as well. At the same time the wound was washed and bandaged. This mode of treatment of course appealed to the vulgar, but not a few medical men of repute endorsed it. Hildanus, one of the best surgeons of his time, knew that the important factor in the cure was the cleansing of the wound, the dressing of it, and then letting it alone. But, influenced by the solemn assertions as to its value, he professed to accept the fact and tried to account for it on supernatural grounds. He concluded that the Devil must have a hand in the affair. Bacon, in his Natural History, speaks of the Weapon Salve as being vouched for by men of credit, but he himself "as yet is not fully inclined to believe it."

The same underlying principle is seen in the still more famous Powder of Sympathy, upon which Digby lectured in 1658 before the Faculty of the University of Montpellier. This powder was said to have the property of healing wounds if applied to the blood-stained garments of the injured person. A friar returning from the East brought this wonderful secret to Europe about the first quarter of the seventeenth century. The Grand Duke of Florence, the city where the friar was sojourning, heard of the cures and tried to obtain the secret, but without success. Digby was fortunate enough to meet the friar and do him a favour, in return for which the recipe was imparted to him. On his return to England, Sir Kenelme soon had an opportunity of testing its virtues. A Mr. J. Howell had been wounded in attempting to part two friends of his who were fighting a duel. Four days after this Sir Kenelme dipped one of Mr. Howell's garters in a solution of the powder. Immediately the wounds, which were very painful, grew easy, although the patient was unaware of what was being done to his garter. Howell then returned home, leaving his garter with Sir Digby, who hung

it up to dry. Shortly after, Mr. Howell sent his servant in a great hurry to say that his wounds were paining him horribly. The garter was replaced in a solution of the powder, and the patient got well in five or six days, during which the garter was continuously immersed. King James was interested in the affair, and asked the secret of Sir Kenelme, who imparted it to him. Several other trials were made of it, which all succeeded marvellously. The king's physician, Dr. Mayerne, learning also the secret, communicated it to the Duke of Mayenne in France, who performed many cures with it. He, in turn, taught it to his surgeon who after the Duke's death sold it to many persons. And, after all, what was this magical substance? Nothing but powdered vitriol. But it was not common every-day vitriol! Twice or thrice it was to be dissolved, filtered, and crystallized. The crystals were to be placed in the sunlight during the months of June, July, and August, care being taken to turn them so that all should be exposed. The details are given in *Chymical Secrets and rare Experiments in Physick and Philosophy*, published some years after Digby's death by George Hartmann, who claimed to have been his steward and laboratory assistant. Arrant nonsense all this, we say. Perhaps, however, there is some show of reason behind it after all. In any case, an age that tolerates, not to say encourages, chiropractors, osteopaths, "drugless healers," and Christian Scientists, cannot afford to be superior. The rationale was simple. The wound was washed, brought together with bandages, and covered with Friar's Balsam, an admirable dressing in use to-day, and then left alone. The last-mentioned point was of special importance at a time when meddling surgery was in vogue. At the end of a week the wound was usually found to be quite healed, "by first intention," as we are wont to say. The value of the application of the ointment to the weapon, or the powder to the clothing, is not so readily explained. Perhaps it lay in this, that the patient's attention was diverted from his hurt, and so he was less likely to interfere with it. The cure "by sympathy" became widely known. In fact, it "made a hit." In fact and fancy were so happily blended that it appealed even to the poets. We find, for instance, in the *Enchanted Island* that Dryden makes Ariel give instructions for treating a wound as follows—

"Anoint the sword which pierced him with this
Weapon salve, and wrap it close from air,
Till I have time to visit it again."

Digby's powder was widely advertised, and for a generation or more could be obtained at the apothecary's and elsewhere. In an

advertisement appended by the bookseller Nathaniel Brookes to *Wit and Drollery* (1661) we are informed that Sir Kenelme Digby's powder is capable of curing green wounds and the toothache, and is to be purchased at Brookes's shop in Cornhill.

Old in years but not in spirit, the brilliant philosopher retired to his house in Covent Garden, London, shortly after the Restoration, where the wits, philosophers and scientific men of the day delighted to foregather. Digby is said to have often "wrangled" with Hobbes there. Death came to him in 1665, and he was buried beside his wife in a vault in Christ-Church-within-Newgate. He directed that no inscription was to be placed upon his tomb. The monument with the copper-gilt bust of Lady Digby was destroyed in the Great Fire of London.

Digby was a notable figure. Wood says "he had so graceful an elocution and noble address that, had he been dropped from the clouds into any part of the world, he would have made himself respected." Lord Clarendon tells us, "He possessed all the advantages which Nature and art, and an excellent education could give him."

We have heard what his detractors said about him. Whereabouts lies the truth? In the matter of his scientific studies, he has been regarded as an enthusiastic visionary; at worst an imposter, at best an elegant trifler. It is unfair to judge him by our standards. He should be regarded in the light of the times in which he lived. It was the age of alchemy, astrology, witchcraft, superstition, and quackery of all kinds. The social system was cruel and immoral. Digby stands out head and shoulders above all this. Was he credulous? Let us hear himself on the subject of astrology, "I do not conceive that wise men reject it so much for being repugnant to divinity as for having no solid rules or ground in nature. To rely too far on that vain art I judge to be folly rather than impiety etc." (Observations on *Religio Medici*.) On the existence of witches: "I acknowledge ingenuously, our physician's experience hath the advantage of my philosophy in knowing there are witches. Yet I am sure I have no temptation to doubt of the Deity, nor have any unsatisfaction in believing there are spirits. I do not see such a necessary conjunction between them, as that the supposition of the one must needs infer the other. Neither do I deny there are witches. I only reserve my assent, till I meet with stronger motives to carry it (*ibid.*)" Here appears the attitude of mind of the true scientist in the demand for proof. True, Digby was a mystic, but so were most of the scientific investigators of his day. We must remember that the experimental method in natural science, chemical

and physiological, was still in its infancy. But we speak with respect of the work of Harvey, Willis, Lower, Sir Christopher Wren. Digby's researches may not, in all points, have stood the test of time, any more than some of theirs, but at least they were suggestive and stimulating, and advanced the cause of truth. I have mentioned his advanced views in regard to the contraction and relaxation of the cardiac muscle. Digby seems to have been the first to notice that this muscle was made up of bundles running in various directions. He is said to have been the first to point out the necessity of "vital air" (oxygen) in the growth of plants. He knew what was best in the medical science of the times. He sometimes spoke in the language of Galen, but he was not a Galenist. He was a careful observer and recorder of facts. When he described a petrified city in Tripoli, he was abused for his credulity, in fact, roundly accused of lying, but subsequent investigation showed that he knew what he was talking about. We must conclude that Digby was a sincere and honest student of natural phenomena, a close reasoner, with a strong practical bias. If at times he was too imaginative, he erred in good company. With Sir Benjamin Ward Richardson "let us take Sir Kenelme Digby as we find him in his works, and on the pure principle 'nothing extenuate nor ought set down in malice', accept him as he was, a man who rose in spite of the evil star under which he was born, became useful, and died in goodwill with good men." Let us call him, with his friend Ben Jonson, "A gentleman absolute in all numbers."