



A SURGEON-APOTHECARY OF THE 17TH CENTURY

The picture, painted by David Teniers, the Younger (1610-1690), at Brussels, gives an impression, applicable to Scotland, of the conditions of general practice in the latter half of this century

GENERAL PRACTICE IN THE SEVENTEENTH AND
EIGHTEENTH CENTURIES

DURING the 17th century, Scotland was an extremely poor country. The southern and more wealthy part had been wasted by the English Wars in the middle of the 16th century, by the plague, and by the internal political troubles associated with the period of the Reformation. About the middle of the 17th century, the country was still further impoverished by the Civil Wars, the efforts made in 1650 on behalf of Prince Charles, and the great fines subsequently imposed by Cromwell. The 17th century accordingly was one which showed only a very gradual development in medicine. Opportunities for medical education were few, and means of transport were extremely bad and slow, so that it was difficult for medical practitioners to travel any great distance to see patients, except in the case of the wealthy, or, indeed, to subsist at all in country places. With the exception of a few roads between the principal towns, there were no routes over which wheeled vehicles could pass, and such roads as existed were of very poor quality. Communication in country districts was carried out entirely on foot or horseback. Even carts were not introduced till late in the 17th century, and merchandise was transported on rough sledges or by horse panniers. Horse litters also had been used from early times by wealthy and sickly people.

So late as 1658, a stage-coach passed between London and Edinburgh only once in three weeks.¹ Two places so near as Edinburgh and Haddington were connected by stage-coach only twice weekly in the year 1678, while the first stage-coaches between Edinburgh and Glasgow were set up in this year, subsidised by the municipalities, and even so, were unsuccessful. A traveller in Scotland, in 1688, says that there were then no stage-coaches, although the great men of the country often travelled by a coach and six, exercising great caution, with a footman running on each side. Letters were carried by foot-post and carriers, and so late as 1749, communication between Edinburgh and Glasgow (now occupying sixty-five minutes) was effected by a covered spring-cart twice in the week, which took a day and a half on the journey.² In 1716 a traveller proceeding from Edinburgh to Ross-shire got as far as Queensferry in a coach and then had to proceed on horseback, taking six days to cover 170 miles.³ Even in 1740, Lord Lovat, having occasion to travel from Inverness to Edinburgh with his two daughters, had to carry a wheelwright with him in order to repair his coach on the journey,

¹ Chambers: "Domestic Annals of Scotland," 1859, Vol. II, p. 247.

² Chambers: "Domestic Annals of Scotland," Vol. II, p. 393.

³ Op. cit., Vol. III, p. 407.

which occupied twelve days, and was attended by numerous accidents.¹ The famous roads through the Highlands, begun by General Wade in 1726 (the year in which the Medical Faculty at Edinburgh was founded), did much to accelerate communication between certain places, but only 260 miles of road were affected, and these were not finished until late in the century.

Inns, too, were of late development in Scotland. Fynes Moryson, a gentleman who made a tour in Scotland about the year 1598, and published his "Itinerary" in 1617, stated that there were no inns as in England, but in all places some houses were known where passengers might have meat and lodging. He, however, records the great hospitality with which he met.² This isolation had a paralysing effect upon all attempts to improve medical practice or better the practitioner's knowledge.

As an example of the sparseness of medical practitioners in country districts, it is said that there was only one medical man on the main road for fifty miles north of Aberdeen at the beginning of the 18th century, Dr. Beattie, in the Garioch. "In his later days he used to be seen visiting patients mounted on a shaggy pony. His professional dress was a greatcoat, so frayed by time and weather that its original colour was undiscernible, and he wore a yellow wig."³

In the absence of local medical practitioners, it was necessary that the clergyman and the Laird should know something about medicine, and they had often picked up some rudiments of this during their College course. In the case of the wealthy, physicians and surgeons were frequently brought from a long distance to attend during an illness, while the great nobles and the Highland chiefs had their private medical attendants, who could give assistance to the poor retainers of their patrons.

An interesting proprietary remedy, introduced early in the 17th century, was Anderson's Scots Pills. Dr. Patrick Anderson, who practised at Edinburgh, London and Paris, speaks in a little book, which he wrote on their virtues, of having got the receipt in Venice about 1603. Their main constituent was aloes, and they were widely used for headache, stomach troubles, constipation, rheumatism, etc. Indeed, several men who were early principals and regents in the Town's College, wrote elegant Latin verses on their usefulness. These pills were widely used for 300 years, and were still on sale in the year 1910.⁴

An indication of professional fees charged at the end of the 17th century may be gained from two examples. In 1689, Dr. David Mitchell, of Edinburgh, under sanction of the Privy Council, undertook the charge of Alexander Irvine, of

¹ Spalding's "Miscellany," Vol. II, p. 5.

² Chambers: "Domestic Annals of Scotland," Vol. I, p. 299.

³ E. H. B. Rodger: "Aberdeen Doctors," 1893, p. 25.

⁴ Anderson: "Grana Angelica," Edinburgh, 1635; and Wootton: "Chronicles of Pharmacy," London, 1910 Vol. II, p. 168.

Drum, in Aberdeenshire, a mentally defective person. He hired some additional rooms and made the necessary furnishings, thus establishing one of the first nursing-homes on record. After one month, however, with Dr. Mitchell, the Laird of Drum was persuaded by Marjory Forbes to marry her, and left his medical protector. Dr. Mitchell was allowed by the Lords of the Privy Council a sum of £500 Scots, or £41 13s. 4d., in addition to twenty pieces, for a professional visit to the Laird in Aberdeenshire.¹

The Earl of Home, in 1695, was placed under arrest and ordered to repair to Edinburgh Castle. As he represented his indisposition of body to be such that this was impossible, the Privy Council ordered Sir Thomas Burnet, the King's physician, and Gideon Elliot, chirurgeon, to proceed to the Hirsell in Berwickshire and report upon the Earl's state of health. The doctor and surgeon reported in such terms that the Earl was allowed to remain at his house, the Hirsell, and for their pains in travelling fifty miles and back and giving this medical report, Dr. Burnet was allowed 200 merks (£11 2s. 2d.), and Mr. Gideon Elliot 100 merks (£5 11s. 1d.).² The relative importance of the physician and surgeon towards the end of the 17th century may thus be estimated.

Scottish military surgeons, during the 17th century, appear to have occupied a position of good standing and to have been well paid. In 1644, four surgeons were appointed to the Army, each to have charge of two regiments forming a brigade in the Army sent into England. Each of these was provided with two surgeon's mates. The names of the surgeons were David Kennedie, James Ker, Thomas Kincaid and Nehemiah Touche. Each of the surgeons received an allowance of £15 for furnishing his "kist." The pay was at the rate of 5s. daily for a surgeon, and 4s. for his two mates, with an additional allowance of 3s. daily for their three riding horses, and 2s. 6d. for two baggage horses to carry their equipment.³ In 1646, the pay was raised so that the surgeons, of whom one was now allowed to each regiment, received 20s. daily, this being the same rate as that for a Lieutenant of Foot and an Ensign of Dragoons.⁴

In 1649, when the Scottish Army was being re-formed in Perth and the neighbourhood, a generous scale of allowances was sanctioned, and the Army appears to have been well equipped, although it met with disaster at Worcester two years later. Among its general officers were two surgeons-general, each of whom was promised £40 per month. It may be mentioned in passing that each of eight ministers, similarly classed as generals, received £66 13s. 4d. monthly, while the Army, which set out with high hopes for a premature Restoration, included a "writer of the History of the Times," at a salary of £200 per month.⁵

¹ Chambers: "Domestic Annals of Scotland," Vol. III, p. 22.

² Chambers: Op. cit., Vol. III, p. 117.

³ "Acts of the Scottish Parliament," Vol. VI, i, p. 74.

⁴ "Acts of the Scottish Parliament," Vol. VI, i, p. 620.

⁵ "Acts of the Scottish Parliament," Vol. VI, ii, p. 448.

During the 17th century, surgery appears to have been of a rough and ready type, although no doubt gradual progress was made. Most of the foundation hospitals which had existed before the Reformation had fallen into neglect, or their buildings and revenues had been appropriated by the proprietors of neighbouring lands, or by persons possessing sufficient influence with the Reforming powers; and the voluntary hospital movement of the 18th century had not yet begun. There were thus few facilities available for surgeons who wished to improve their methods. As an illustration of surgical practice at its best, a few quotations may be given from Richard Wiseman, "the father of English surgery." Wiseman accompanied Prince Charles (later Charles II.) from Holland to Scotland in 1650, as his medical attendant and surgeon to his troops, and took part in the operations against Cromwell, which ended with the battle of Worcester. He practised for about a year in Stirling and Perth, for after the disaster at Dunbar, Charles was still left with a Royalist Army in the neighbourhood of Perth.



RICHARD WISEMAN (1620-1676)

(From the original in the Wellcome Historical Medical Museum)

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Speaking of the type of wounds with which surgeons then had to deal, and which were found in the Covenanters who had managed to escape from Cromwell's horsemen at Dunbar, Wiseman says:—

"I shall now consider of Wounds with losse of Substance made by Bill, Pole-axe, Sword, etc., some cutting twice or thrice in one or near one place, whereby the Wound is large, transverse, yea and oblique, at the same time, and the Lips contracted various ways, and so the Cure is rendred much more difficult. These kind of Wounds are

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not so often seen in times of Peace, but in the Wars they are frequent, especially when the Horse-men fall in amongst the Infantry, and cruelly hack them; the poor Souldiers the while sheltering their Heads with their Arms, sometime with the one, then the other, untill they be both most cruelly mangled: and yet the Head fareth little the better the while for their Defence, many of them not escaping with lesse then two or three Wounds through the Scull to the Membranes, and often into the Brain. And if the man fly, and the Enemy pursue, his Hinder parts meet with great Wounds, as over the Thighs, Back, Shoulders and Neck. . . . At Sterling in Scotland Mr. John Chace, Apothecary to his Majesty, helped me in the like work. One of the Souldiers had such a gash thwart the Nape of his Neck, that it was a wonder to us he lived. His Wound was full of Maggots; and so were those of all the rest that were inflicted on the Hinder parts, they having been some days undrest.”¹

In discussing wounds of the brain, Wiseman gives, among others, the following instance of success following trephining. The servant maid must have been a hardy lass, to be able to attend him daily as an out-patient after a trephine opening had been made in her skull. The Mr. Penycuke, whom Wiseman mentions, was Alexander Pennycuik, who entered the Edinburgh Incorporation of Surgeons and Barbers in the year 1640. His father was the Laird of Pennycuik, and Alexander sold this estate and bought Newhall in Midlothian. He had been surgeon to General Banner in the Thirty Years’ War, and was, at the time of his connection with Wiseman, surgeon-general to the Scottish troops.

“At Sterling Mr. John Chace was present when a poor Servant-maid came to me to be drest of a Wound she had received on her Head by a Musket-shot, in the taking of Calendar-House by the Enemy. There was a Fracture with a Depression of the Scull. I set on a Trepan for the elevation of the deprest Bone, and for discharge of the Sanies. She had laboured under this Fracture at least a week before she came to me, yet had none of those Symptoms aforementioned. But after Perforation, and raising up this deprest Bone, and dressing her Wound, she went her way, and came daily thither to be drest, as if it had been only a simple Wound of the Hairy scalp. Mr. Penycuke, an eminent Chirurgeon of that Nation, did assist me in this work. I think the Brain it self was wounded. I left her in his hands, who I suppose finished the Cure.”²

The following quotation illustrates a point upon which Wiseman and his contemporaries often insisted, that gun-shot wounds were not poisonous because of anything connected with the powder, but that their tendency to inflammation was due to failure on the surgeon’s part to purify the wound properly:—

“Nay, while any of the Rags remain in the Wound, it will never cure: but the extraneous bodies drawn out, there is little difficulty in the healing these Simple Wounds, if drest rationally.

“An Instance whereof I shall give you in a poor Souldier, who was shot at the Castle of Dunbar with a Musket-bullet a little above the left Clavicle, in amongst the Muscles of that Scapula. The Bullet was drawn out by one of my Servants, and the Wound drest up with Digestives. But some days after, he being brought to Saint-Johnston’s (*Perth*), I found it inflamed and very much swelled. We dressed it up according to the method set down in this Treatise; but it apostemated, and mattered very much.

¹ Richard Wiseman: “Severall Chirurgicall Treatises,” London, 1676, p. 348.

² Richard Wiseman: “Severall Chirurgicall Treatises,” London, 1676, p. 401.

After several unsuccessful Applications, I made an Incision by the side of the Scapula into the Cavity, and pulled out the Rags that had been carried in by the Shot: and from that time all Accidents ceased, and the Wound cured soon after. But if such be handled as some have lately taught, they are so many poisoned Gun-shot Wounds.”¹

Gun-shot wounds of the chest were apparently treated with success in Wiseman’s time, as the following quotation shows. He seems somewhat sarcastic as to the great cures performed by the Scottish leeches in such cases by virtue of balsams given internally:—

“ From the Defeat of the Scotch Army near Dunbar there came many of the wounded to Saint-Johnston’s (*Perth*), and amongst them there were severall wounded into the Breast. They who were so shot as to have the Ribs broken, were in extreme Pain from the Shivers: whereas the rest whose Bones were not hurt had scarce any Pain at all, but what proceeded from Difficulty of breathing; they all coughing up a stinking Sanies both before and after the separation of the Sloughs. One of them cougth a very great proportion daily of thin Matter, of a brown colour and ranck smell. None but this died under my hands; the rest after some while retiring to their homes, where (as I have often heard them say) their Leeches performed great Cures, by virtue of some Plants which they gave internally, and which with Fats they made Balsams of. Yet I believe this man died tabid.”²

About the middle of the 17th century, Sydenham, in London, introduced a new method of treating fevers. Hitherto, it had been the custom to treat the patient in a fever by heaping clothes upon him in bed, closing up the room in which he lay, lighting a large fire, and supplying the patient with cordials and stimulants. Sydenham, however, insisted on opening windows, banishing fires and providing only the ordinary bed-clothes. The sick man was to be well supplied with bland fluids, of which Sydenham specially commended small beer, and in the case of smallpox he recommended the use of syrup of white poppies, and of a vomit of antimonial wine, as well as blood-letting in moderate degree, according to circumstances.

In 1687, Sydenham was visited by Dr. Andrew Broun, of Edinburgh, who, in 1691, published a small book called “A Vindictory Schedule concerning the New Cure of Fevers.” Broun, who is commonly called “Dolphinton,” from his estate in Lanarkshire, was an Edinburgh physician, and spent several months as a pupil of Sydenham, whom he eulogises in his book. The book provoked a spirited controversy in Edinburgh medical circles of the time, and in the Royal College of Physicians at Edinburgh there are preserved some fourteen pamphlets published between 1691 and 1709, of refutations, defences, letters, etc., in regard to the new method of Sydenham’s treatment, which Broun strove to introduce. The most interesting of these is one of 1692, entitled “In Speculo teipsum Contemplare,” an imaginary and very abusive dialogue between Dr. Brown and a hypothetical Dr. Black.

¹ Richard Wiseman: “Severall Chirurgicall Treatises,” London, 1676, pp. 410 and 411.

² Richard Wiseman: “Severall Chirurgicall Treatises,” London, 1676, p. 436.

The general contention on the part of Andrew Broun and his supporters, following Sydenham, was that in fevers cathartics gave relief, and might be combined with blood-letting and restrained by paretic. Help might also be had from fixed and volatile salts as well as alkaline concretions, and by cupping, leeches and frictions. Vomiting, too, was supposed to aid the elimination of the poisonous material. For those persons who were able to go about, horseback exercise was recommended on account of its influence in "jogging the humours." Towards the end of this discussion, Dr. Archibald Pitcairne and Sir Robert Sibbald were brought in on a side issue, and the whole question seems to have caused great heart-burning for nearly twenty years in Edinburgh medical circles. It appears from incidental references in these controversies that the chief medical authorities used in Scotland at that date were the "Practice of Medicine," of Riverius, and "The Practice of Medicine" of Sylvius.

The Pharmacopœia issued by the Royal College of Physicians of Edinburgh in 1699, did much to standardise medical prescriptions and the substances used in treatment. Hitherto a knowledge of remedies had been gained from ancient writers, such as Dioscorides, commentaries like that of Matthiolus, and herbals, either preserved in manuscript form, or printed like those of Gerard and Culpepper. The Pharmacopœia is a small duodecimo volume containing a long list of simple medicaments, mostly of vegetable origin, with instructions for the preparation from them of various waters, syrups, powders, lozenges, pills, ointments and tinctures.

Among the more striking preparations contained in it is a compound powder of crabs' claws, which contains various substances such as powdered red coral, crabs' claws, etc., but whose impressiveness is enormously enhanced by the inclusion of bezoar stone and prepared pearls. It must have been a most expensive form of prescription for carbonate of lime. Another noteworthy preparation is the "Mithridatium Damocratis," which contains no fewer than forty-eight ingredients, chiefly flowers, seeds, gums and oils, of which opium seems to be the most active. It was given in cases of poisoning. There is nothing in this first Pharmacopœia that could be called disgusting, and this official list of medicines stands in marked contrast to the popular medicine of the day, represented, for example, by the receipts of John Moncrief of Tippermalloch, which will be mentioned later. It contrasts very favourably also with the Pharmacopœia of corresponding date issued by the College of Physicians in London.

A second edition of the Pharmacopœia was issued in 1722, and a third in 1735. By this time various animal substances had been introduced, possibly as a concession to popular medicine. Thus, a method of preparing dried goats' blood is given. Urine mixed with salt is used to prepare sal ammoniac. Prepared millipedes (slaters) are to be dried at a gentle heat and used as an

ingredient of various medicines, probably for the stimulating properties of the formic acid they contained. Dried bees are used in a similar manner. Crabs' claws and pearls are employed as before. One of the most striking additions to the materia medica is "*Bufo præparatus*," for which the recipe is that "living toads are to be set in an earthen pot, desiccated at a moderate heat and reduced to powder." It seems hard on the toads that they should have been alive at the beginning of the preparation, but it has been found in recent years that the skin of the toad contains a valuable glucoside, having an action similar to that of digitalis.¹ This was half a century before William Withering, an Edinburgh graduate, who had settled near Birmingham, investigated, in 1776, the medicinal properties of the foxglove.

There was a great deal of irregular practice in the early part of the 18th century. The country was invaded by mountebanks, who came especially from Germany and the Low Countries, set up stages in the towns and treated people wholesale. Partly owing to the scarcity of doctors and partly perhaps from want of faith in some of those who were provided with University degrees, a great number of books on simple forms of medical treatment were also in vogue.

This general attitude is illustrated by the case of Sir John Clerk, of Penicuik, who, in 1710, fell ill of a great cold, tried several doctors and medicines, and finally rode to Bath "contrary to the advice of Physitians at Edin., for they all agreed that the Bath Water wou'd prove hurtful." He, however, found that the change of air contributed to his recovery, and that he was cured by taking the "*Elixir Proprietatis cum spiritu sulphuris*." This was a nostrum composed by Dr. George Thomson, who wrote "*The Direct Method of Curing Chymically*," London, 1675.² This book was typical of many others.

A book of simple, harmless and generally useful remedies, which had an enormous vogue in England, and which was occasionally found in Scotland, was "*Primitive Physic, or an Easy and Natural Method of Curing Most Diseases*," composed by the Rev. John Wesley (1703-1791), and sold at the Methodist preaching-houses throughout England. It had reached its 21st edition by 1785.

In Scotland several books were in use, designed for those who knew a little medicine, such as the clergymen, lairds or great ladies who took an interest in their retainers. Of these books, one of the best known was "*The Poor Man's Physician, or the Receipts of the Famous John Moncrief of Tippermalloch*." This, as its title-page records, is "a choice collection of simple and easy remedies for most distempers, very useful for all persons, especially those of a poorer condition." The first edition was published in 1712, and the third edition in 1731.

¹ See Abel & Macht: "*J. Pharm. Exp. Therap.*," Vol. III, 1912, p. 319; and Shimizu: "*J. Pharm. Exp. Therap.*," Vol. VIII, 1916, p. 347.

² "*Sir John Clerk's Memoirs, 1676-1755*," *Scottish Hist. Soc.*, Edinburgh, 1892, p. 77.

Tippermalloch's little book consists of a long list of remedies divided under diseases of the head, diseases of the nostrils, diseases of the liver, and so on through other parts of the body, taking up the various diseases affecting each part. There is no attempt at explanation, but after each heading is given a selection of remedies. Some of these appear to be quite natural and salutary, and some can only be described as extremely disgusting. No doubt his intention was to mention remedies likely to be favoured by different types of person, so that people who liked heroic or disgusting things could get what they liked. For the scurvey, which was a troublesome disease at the time, he sensibly recommends to "take of clear Juice of Water-cresses and Brook-lime, of each one Ounce, the Juice of Fumitory two Ounces, white Sugar two Drams. Make a Potion."¹ For the itch, another very troublesome disease of the time, he recommends the standard remedy of brimstone, with nitre, rubbed on.

The following is a fair average sample of the book :—

" 38. *For the Colick.*

1. The Hoofs of living Creatures are singularly good, being drunk. *Rhasis.* Or dry Oxdung drunk in Broth, or the Juice pressed from the Ox-dung drunk, is better. *Gesnerus.* 2. The Heart of a Lark bound to the Thigh, is excellent against the Colick, and some have eaten it raw with very good Success. *A Spaniard.* 3. This is certain, that a Wolf's Dung, Guts, or Skin eaten, will cure the Colick, or if you do but carry them about you ; for they strengthen the Cholera. *Cardanus.*"²

Some of his remedies have apparently come down by tradition as old folk-medicine. Others, such as the following, suggest a derivation from some of the ancient classic writers like Scribonius Largus, possibly through old monastic sources. As a cure for the falling sickness in children, he gives the following prescription :—

" 8. *Of the Falling-sickness in Children.*

3. Take a little black sucking Puppy (but for a Girl take a Bitch-whelp), choke it, open it, and take out the Gall, which hath not above three or four Drops of pure Cholera : Give it all to the Child in the Time of the Fit, with a little Tiletree-flower Water, and you shall see him cured, as it were by a Miracle, presently."³

Towards the end of the 18th century, as regular medicine became more easily available, these ancient recipes passed out of use, and excited a great deal of ridicule, as in the sarcastic poem of Robert Burns on "Death and Dr. Hornbook":

" Calces o' fossils, earth, and trees ;
 True sal-marinum o' the seas ;
 The farina of beans an' pease,
 He has't in plenty ;
 Aqua-fontis, what you please,
 He can content ye.

^{1, 2, 3}, Moncrief: "The Poor Man's Physician," Edinburgh, 1731, pp. 40, 182 and 4.

Forbye some new, uncommon weapons,
 Urinus spiritus of capons ;
 Or mite-horn shavings, filings, scrapings,
 Distill'd *per se* ;
 Sal-alkali o' midge-tail-clippings,
 And monie mae."

Among the diseases of the 17th and 18th centuries, which those medical practitioners who happened to be available found themselves frequently called upon to treat, were smallpox and ague.

Smallpox appeared at recurring intervals in epidemics, which were sufficiently noteworthy to be recorded by the historians of the time, although in Scotland this disease does not seem to have attained the universality with which it afflicted England, if we may judge by Macaulay's words. Referring to the death of Queen Mary in 1694, Macaulay says :—

"That disease, over which science has since achieved a succession of glorious and beneficent victories, was then the most terrible of all the ministers of death. The havoc of the plague had been far more rapid : but plague had visited our shores only once or twice within living memory ; and the smallpox was always present, filling the churchyards with corpses, tormenting with constant fears all whom it had not yet stricken, leaving on those whose lives it spared the hideous traces of its power, turning the babe into a changeling at which the mother shuddered, and making the eyes and cheeks of the betrothed maiden objects of horror to the lover."¹

In Scotland, however, the epidemics of smallpox were sufficiently severe. In 1610, there was a great visitation of the young children of Aberdeen with the plague of the pocks, which was attributed to "the sins of the land." In 1635, the smallpox raged for six or seven months with great severity among the young in Scotland, and, what was remarked as unusual, some persons took the disease for the second time.² Again, in August, 1641, Aberdeen was greatly afflicted for :

"In this month, a great death, both in burgh and land, of young bairns in the pox ; so that nine or ten children would be buried in New Aberdeen in one day, and continued a long time. . . . There was reckoned buried in Aberdeen about twelve score bairns in this disease."³

In April, 1672, it is recorded that smallpox was present in Glasgow, and had raged for six months previously, so that hardly a family escaped the infection, and eight hundred deaths and upwards occurred.⁴ This was extremely serious for a small town of about 12,000 inhabitants, which Glasgow then contained. Still another record of December, 1713, mentions that in Eglesham parish the smallpox was severe and eighty children died.⁵

Dr. Archibald Pitcairne's method of curing the smallpox, written in the year 1704 (that is before the introduction of inoculation), for the use of the noble and

¹ Macaulay : "History of England," Vol. IV, p. 532.

² p. 85, ³ p. 140, ⁴ p. 347, Chambers : "Domestic Annals," Vol. II.

⁵ Chambers : Op. cit., Vol. III, p. 387.

honourable family of March, may be given here as an example of 17th century medical treatment :—

“ If a Child, or any Person grow sick, feverish, or has a Pain in the Back, or Slot of the Breast, Loss of Appetite, Drowsiness, short Cough, Sneezing, watery Eyes or some of these ; but always accompanied with some Heat, and frequent Pulse, or Drought. In this case Blood is to be taken at the Arm, or with Loch-Leeches ; and if the Fever ceases not, tho’ the Pox appear, let Blood a second or third time. Meantime give the Child a Spoonful of Syrup of White Poppies at Night, and in the Night-time, also till Sleep or Ease comes.

“ After the Pox appears, and Fever is gone, then steep a Handful of Sheeps’ Purles in a large Mutchkin¹ of Carduus-water, or Hysop-water, or Fountain-water, for 5 or 6 Hours ; then pour it off without straining, and sweeten it with Syrup of red Poppies. Give of this a Spoonful or two, every 4th or 5th Hour, to make the Pox fill, and preserve the Throat. Always at Night-time, and in the Night, give a Spoonful or two of the Syrup of white Poppies for a Cordial, that keeps down the Fever, and keeps up the Pox.

“ If the Pox run together in the Face (which is the only thing that brings Hazard) use the Infusion of the Purles, and the Syrup of white Poppies oftner than in other Cases ; also about the eighth Day from the appearing of the Pox, or a little before that, give the Child to drink of Barley-water, sweetned with Syrup of white Poppies ; this will make the Child spit, which saves the Child.

“ The Child’s Drink may be Milk and Water at other times, or Emulsion, but use the first rather.

“ Apply nothing to the Face. Use no Wine, or Winish Possets.

“ If any Loosness comes before the 4th Day of the Eruption, stop it with Syrup of Poppies, and five or seven Drops of liquid Laudanum given now and then till it be stopt.

“ Let the Child’s Diet be all along a thin *Bread-Berry* in the Morning, a weak Broth, and soft Bread for Dinner, and Milk and Bread at night, or Sugar-Bisket and Milk, and about the fifth Day from the Eruption, give the Child Water-gruel sometimes.

“ *Note.*—If at any time the *Small-Pox* disappear, with a Raving before the 5th, 6th, or 8th Day from the Eruption, then let Blood again, and apply a large Blistering Plaister between the Shoulders, and give an Emulsion.

“ If the Small-Pox fall down, without Raving, then apply a Blistering Plaister large between the Shoulders, and give an Emulsion, and boyl in a Gill of Water, and as much White or Red Wine, half a Dram or a Dram of Zedoary-Root sliced, 2 Figgs, and 2 Scruples of Theriac or Diascordium ; sweeten it with Syrup of Kermes and white Poppies, each half an Ounce.

“ In the End of the Disease, that is, about the 10th, 11th, 14th, &c., Day, after the Eruption ; if the Child’s Defluxion is gross, either apply a new Vesicatory, or give often the Spirit of Hart-horn, in Syrup of Violets, or a Vomitor.

“ *Lastly*, When the Pox is blackened sufficiently, or about the 14th Day from the Eruption, let the Child drink Whey, eat Pottage, &c. Broth with Prunes, unless the Child’s Belly is open enough of it self.

“ But if the Child is so young or unlucky, as not to cough heartily, and force up the Defluxions ; or if the Frost thickens it, apply to the *Slot* of his Breast a Pultess of Theriac,

¹ A Pint Measure.

Diascordium, Alkermes, Oyl of Rosemary, and Cinammon with warm Claret, in a double Linnen Cloath often.

“ And to the Throat apply, in a double Linnen Cloath, a Pultess of Cow’s Dung boild with Milk, and soft white Bread : Put a little Brandy to as much as you apply at a time.

“ For the Defluxion also give inwardly some of this, which has a Dram of *Sperma Cæti*, well mix’d in a Glass-Mortar (not a Brass one) with fine Sugar ; to which add at leisure Syrup of Violets, or Balsamick, or Poppy Syrup, with some Spirit of Harthorn.

“ If the Pox was confluent or run together on the Face, then, after the Person is recovered, give a Purgative, to bring away the Remainder of the Pox within the Guts.”¹

The practice of inoculation was introduced into London on the recommendation of Lady Mary Wortley Montagu in the year 1721. Dr. Peter Kennedy, a Scotsman practising ophthalmic surgery in London, had already, in 1715, written of the good effects that he had seen from inoculation in Constantinople.² Maitland, a Scottish surgeon, who had attended the Embassy in Constantinople, was employed, in 1721, to carry out the experimental inoculations upon condemned criminals, conducted by Sir Hans Sloane at the instance of King George I.³

The practice of inoculation against the natural smallpox, having proved effective in England, was adopted in Scotland some five years later, and appears to have been very successful in diminishing or preventing the epidemics which had occurred in previous centuries. In a statistical account of Scotland, published in 1791, the former ravages of smallpox are declared to be much abated owing to the parish ministers performing inoculation in children. The epidemical disease most dreaded was still said to be the natural smallpox, which occurred about once in every seven years and swept away a number of children. This was attributed to the neglect of inoculation, and there are numerous complaints at this time of the absence of doctors or surgeons in country districts. A plan was proposed that the students of divinity at the University of Edinburgh should be instructed in the art of performing inoculation, “which the physicians of that city generously and humanely proposed to do, without putting them to any expense.” As an example of the success of inoculation, it is mentioned that among one thousand patients inoculated by Dr. Lindsay, in Jedburgh, only two died, and these were believed to have been infected in the natural way.⁴

The method of performing inoculation about fifty years after its introduction is given in a letter by Professor William Cullen to a young practitioner in the south of Scotland, as follows :—

To Mr. Michael Gardiner, on Inoculation,

DEAR SIR,—Lord Stonefield proposes to have his son Mr. Willie inoculated this harvest, and as he is to be under your care his Lop. desires me to give you my opinion concerning

¹ Pitcairne: “The Method of Curing the Small-Pox; Written in the Year 1704. For the Use of the Noble and Honourable Family of March,” Printed 1715.

² Kennedy: “An Essay on External Remedies,” London, 1715, Chap. 37, p. 153.

³ Creighton: “History of Epidemics in Britain,” Vol. II, p. 467.

⁴ Sinclair: “Statistical Account of Scotland,” Edinburgh, 1791, Vol. I, pp. 3 and 263, Vol. II, p. 126, and Vol. IV, pp. 527 and 548.

the best manner of managing this matter. With regard to the ordinary practice I know that I need not instruct you, and shall therefor say only what relates to the particular patient, or to new and late improvements in the general practice which you may not have had experience of.

I think he should not be inoculated for ten or twelve days after he goes to the country that you may be certain he has caught no cold in changing quarters, and farther that the hot season may be over.

During this time there is to be no change of the diet he has been on for some time past, which is milk, grain and vegetables, and entirely without animal food, and this diet is to be continued during the whole course of the disease.

In the time which is to pass before inoculation you may purge him twice, giving one grain of Calomel overnight and a Senna infusion in the morning. The same purging is to be repeated twice between the Inoculation and Sickening, and in both cases the doses are to be given at the interval of three or four days.

The inoculation is better performed by a Lancet whose point has been dipt in a pustule than by a thread as formerly ; but if you cannot have the opportunity of preparing a lancet within a few days before your intended inoculation, you must employ a thread as usual. In employing the lancet if the matter upon it happens to be dry, you must hold it a little over the steam of warm water before you employ it. In employing it you have only to insinuate it under the cuticle without going deeper, and when you have withdrawn the Lancet you have only to press down again the cuticle, and tie a bit of rag upon it which rather does harm. (*sic.*)

Every day both before and after inoculation and every day during the course of the disease, your patient must walk out or be carried out into the fresh air and be very much in it. When rains or high wind render it inconvenient for him to be abroad the windows of his chamber must be kept open for the most part. In short, he can hardly have too much fresh air ; but it is by no means necessary to expose him either to a stream of air or to any moisture, so that these ordinary causes of cold may still be avoided. I say farther that before Inoculation, and from thence to the Sickening, there is no occasion to seek for much cold, and therefor to push him constantly out of the house, but it may be enough to avoid heat, to keep his chamber cool, and to have him often abroad. When the weather is warm he may be cooler within doors than abroad, and this minds to say that when he is abroad he must keep out of the sun and avoid any exercise that may heat him. The less exercise he takes the better. This is the management till he sickens, and when that happens there must be more pains taken to cool him. If any fever appears if it is in the day-time let him be carried abroad to sit in the Shade, and if there is a little Stream of air to fan him it is the better. If it rains or he is so sick as to be averse to sit up, let the windows and even opposite windows be open, and while he lies upon his bed if this does not cool him let him be carried near to the window and held in the stream of air. This is to be done also in the night-time, and if it is fair without high wind I think even in the night-time carrying the patient abroad into the open air is safer than keeping him at a window. When by any of these means the heat delirium, or other symptoms of fever are much abated, he is to be laid abed but he must not be immediately covered with blankets but should be for some time with only a single sheet upon him. Let this be observed that the fever is most liable to come on in the Evening and forepart of the night, and therefor at this time the cooling measures are most necessary ; but that after two or three o'Clock the fever usually declines, and both from this consideration and from the measures employed before, the patient may be covered towards morning and especially during sleep at this time. Upon the whole I think it is found from much experience that external cold is the surest and generally a safe means of moderating the eruptive fever, and in proportion of rendering the small pox few and of a good kind. I have given you

hints of the particular execution, but some part of it must be left to your own discretion upon understanding the general plan. I have only to add that these cooling practices are especially necessary during the eruptive fever, and are to be continued if the small pox should after all prove numerous or be attended with any other unfavourable circumstance. But if upon eruption they are very few and of a good kind, hardly any measures at all are necessary, and the patient may go abroad or stay at home as in ordinary health, or as directed above for the time before sickening. In case of any sharp fever at eruption, besides the cooling I have spoken of it is also proper the day after sickening to give such a dose of Calomel and Physic as above mentioned, and this may be repeated during the course of the disease, and once or twice after it. I have thus given you my plan I hope fully enough; but if any doubt or difficulties remain, you have still enough to have them solved, and I shall be glad to hear from you being very much.—Dear Michael your &c.

W. C.

EDINR., 8th Augt., 1771.¹

The procedure of vaccination, which completely superseded inoculation, was introduced by Edward Jenner in 1796, and within a few years came into general use in Scotland. One of the earliest persons to publish an extended inquiry into its good effects was Dr. William Pulteney Alison, at Edinburgh, in 1817.

Ague or malaria was a disease which occasioned much trouble in the 17th and 18th centuries. It prevailed particularly among the labouring classes, to such a serious extent that frequently the cultivation of the ground in spring could not be performed. By the end of the 18th century ague had almost disappeared from Scotland. The records of Kelso Dispensary show that the number of cases treated there in 1781 was 161, after which a gradual fall took place, so that by 1797 they did not exceed ten in any one year, and after 1840, disappeared altogether. This was probably due to the disappearance of bog land by drainage and cultivation.²

Two peculiarly Scottish diseases of the 18th century were sibbens and croup. Sibbens was a troublesome infectious disease prevailing in the south-west of Scotland. It appeared first as a sore throat with glandular enlargement, and later produced on the skin pustules, which ulcerated deeply, together with small hard knots of a reddish colour, later developing into excrescences resembling raspberries. It is supposed to have been introduced by Cromwell's soldiers, and to have been identical with yaws, a disease prevalent in West Africa, and carried by negro slaves to the West Indies.³ It gradually died out.

Croup was an old Scottish name for an acute disease of the throat accompanied by harsh breathing and hoarse coughing. It had been prevalent in the south-east of Scotland, but had not been described until 1765, when Professor Francis Home, of Edinburgh, published an account of the disease. A little later we find the parish ministers deploring the uncommon mortality due to epidemical sore throat, the fatal issue of which they believed might be prevented by proper

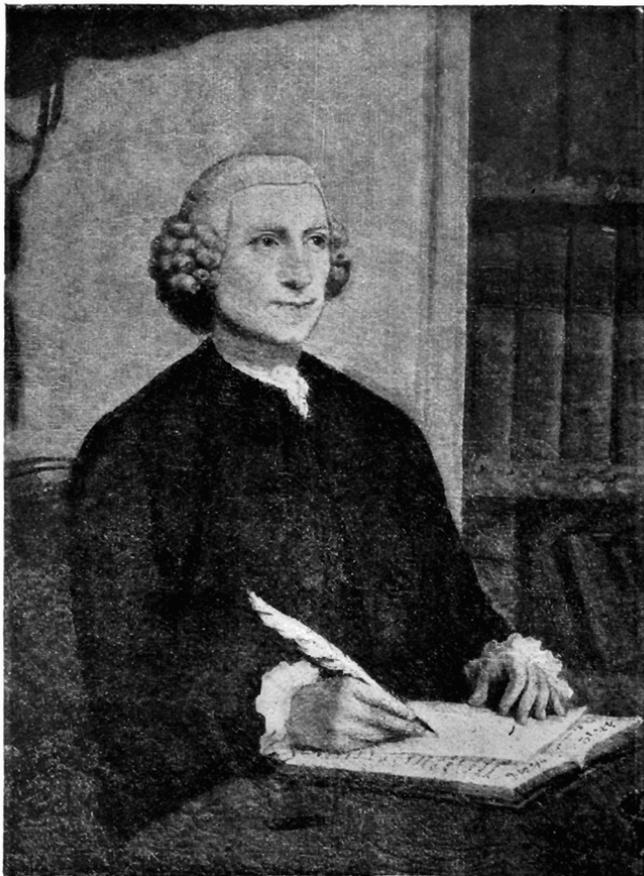
¹ From MS. Letter-books of William Cullen, preserved in the Royal College of Physicians, Edinburgh.

² Ritchie: "Animal Life in Scotland," Cambridge, 1920, p. 510.

³ G. Matheson Cullen: "Concerning Sibbens and the Scottish Yaws," *Caledonian Medical Journal*, April, 1911.

care.¹ Dr. Francis Home says that his description is the first account of the disease, which seldom occurred in Edinburgh, but was frequent in Fife, Ayrshire, Galloway, and other parts near the sea. He described the "white, soft, thick preternatural coat or membrane" covering the air passages of the children who died, "like the blankets of a bed that has been laid in," and he suggested tracheotomy for its relief.² This account was issued more than half a century before the celebrated treatise of Pierre Bretonneau, who gave to the disease the name "La Diphthérie," and who is generally regarded as its discoverer.

Various family accounts for medical expenses have been preserved by the descendants of families living in country districts. For example, in the middle of the 18th century, the family of Lumsden of Cushnie, in Aberdeenshire, had occasion to call Dr. Gregory, mediciner of King's College, and Dr. James Gordon, professor in Marischal College, for attendance in the fatal illness of Mistress Bettie Lumsden. The account



FRANCIS HOME (1719-1813)

of the former amounted to £33 18s. Scots, and of the latter to £37 16s. The lady's illness also incurred a long bill from Francis Legatt, chirurgeon-apothecary, in which such items are mentioned as 8 oz. of cordial mixture at 4s.; 3 vomits at 2s. 6d. each; 2 drachms of cephalick spirit, 4d.; 2 bleedings, 2s. 6d. each; eyewater, 1s.; anodyne purgative 1s.; "blistering plaster for your back," 1s.³

¹ Sinclair: "Statistical Account of Scotland," 1791, Vol. XXI, p. 75.

² Francis Home: "An Enquiry into the Nature, Cause and Cure of the Croup," Edinburgh, 1765.

³ E. H. B. Rodger: "Aberdeen Doctors," p. 18.



WILLIAM CULLEN'S HOUSE IN HAMILTON

The house is on the right of the picture

(Original picture in the Hall of the Royal Faculty of Physicians and Surgeons of Glasgow)

A good idea of practice in the country from the middle of the 18th century onwards, can be gained from the account-book containing the record of medicines furnished by Dr. William Cullen, at Hamilton, from September, 1737, to October, 1741, which is preserved in the Library of the Royal College of Physicians at Edinburgh. The doctor appears to have obtained some of his drugs wholesale from the "Chymicall Laboratory at Edinburgh," and these included such substances as tinctura antimonialis, sweet spirit of nitre, oil of absinth, oil of cinnamon, oil of lavender, oil of rue, oil of savin, extract of chamomile, extract of Peruvian bark, extract of gentian, flowers of benzoin, white precipitate of mercury, red precipitate, green precipitate, sal ammoniac crystallised, and rectified sal volatile.

Hamilton was a large enough place to possess a druggist, and from Mrs. Johnston, who managed the druggist's shop, Cullen obtained oil of turpentine, spirit of wine, oil of origanon, oil of vitriol, English crocus, white arsenic, borax, hellebore root, white wax, lard, gum benzoin, gum elemi, coral, cubebs, sandalwood, oil of anise, levigating marble, Florence flasks, castor, cinnabar, Venetian treacle, mithridaticum, pepper, gentian root, valerian root, laurel berries, Venice turpentine, etc., etc.

He made up these substances into ointments, elixirs, cordials, draughts, enemata, stomachic drops, apozemata, electuaries, etc., at charges from 3*d.* to a few shillings each. His account to Her Grace the Duchess of Hamilton, from November 5, 1741, to April 15, 1742, included such items as 2 ounces of senna, 1*s.*; a glass of specific balsam; a Blistering plaister for ye Ear, 6*d.*; a glass of hysteric drops, 6*d.*; a glass of cordiall mixture, 3*s.*; ane anodyne Draught, 1*s.*, etc. It is noteworthy that "drugs for the horses" came to much more than those for the family. Chocolate was a dear commodity, as two pounds are set down at 1*os.*

A method of treatment which was much recommended by practitioners in Scotland during the 18th century was the whey cure. This, which involved early rising, spare diet, and was carried out in a country district, was of great value at a time when people were apt to exceed both in eating and drinking. The method is concisely expressed in a letter from William Cullen to a patient. The letter is dated from Edinburgh in May, 1768, the year before that in which Cullen first gave a course of lectures in practice of medicine, and runs as follows:—

" For Governor Glen
Goat Whey.

When the stomach is well suited to digest Goat whey, the drinking of this for some weeks at a proper Season is of great Service to many constitutions & the best management for a Goat whey course I take to be the following.

Let the milk be taken from Goats that feed in a mountainous pasture & the higher the better.

Let the Goats be milked early in the morning & if possible let the rennet be put to the milk while it is yet warm from the Goat.

Let that part of whey only be taken that parts readily and entirely from the Curd.

In drinking the whey it is always proper to begin with a small quantity about a gill¹ to continue this for two days & afterwards by slow degrees to increase the dose till it arises to a muchkin² and half or a chopin³ in a morning & above this it is hardly ever proper to go.

Whenever the quantity taken in a morning goes above a Gill it is always proper to divide it into different draughts & to take these at an interval of half an hour or more between them.

It is always best to take the whey betimes in the morning but sooner or later according to the habits that people are in of getting up in the morning. The first draught may be taken a bed but a person should be up to take the second; if the weather allows of it, it is usefull to walk about in the open air between the draughts & for a little after the whole is taken.

When the whey happens to sit heavy or prove windy on the stomach, it may be somewhat corrected by taking a teaspoonfull of Aniseed Sugar in the first draught of the whey or by eating a little Sugared Caraway Seed between the draughts.

The whey operates most properly when it keeps the belly regular without purging & when the most part of whey goes of by Urine.

When the whey does not even keep the belly regular, it is proper to take along with it every day or every second day a Dose of the Soluble Tartar ordered below. The Dose should be such as to keep the body open & no more for I think purging might be hurtfull to the Governour.

Breakfast should not be taken till an hour after the whole of the whey is taken.

The Diet along with Goat whey may be the same as at other times only the stomach should be kept always light. Fish should be taken seldom & very sparingly & much of greens or Roots especially of the Colder or more windy kinds should be avoided.

In drink all kinds of fermented liquors whether wines or Ales are improper & if any Strong drink is necessary the best is water with a little Spirits without any Sowing and with very little or no Sugar. However if this is disagreeable & wine has been usually taken a little Madeira or sherry may be taken at dinner & Supper.

Nothing secures the good effects of Goat whey more than being much in the Open Air & taking a great deal of gentle Exercise on horseback or in a Carriage.

I should have said above that is enough to take the Goat whey once a day for the Evening hardly affords a Convenient time for it unless a person can take it alone for supper.

WILLIAM CULLEN.

EDINR., 30th. May, 1768.

For Governour Glen.

Tartar. Solubil ꝑ ii

Sacchar. alb. duriss. ꝑ i

Terito simul in pulverem & mitte in Phiala patuli oris bene obturata.

Signa. Aperient salts two, three or four teaspoonfulls for a dose to be taken in a draught of Goat whey.

W. C.

30th May, 1768.⁴

¹ One quarter pint.

² One pint.

³ One English quart.

⁴ From William Cullen's letter-books.

The following description of an 18th century Scottish country practitioner is given by Lonsdale in regard to the grandfather of John Goodsir, the anatomist:—

“Nearly a century ago (1768), Dr. John Goodsir was among the best-known men in the East Neuk of Fife. Born in the parish of Wemyss in 1746, he became a graduate of the University of Edinburgh, and settled at Largo. Known at home for his skill, affability and other good parts, his essays in ‘Duncan’s Annals of Medicine’ gained for him reputation in the Edinburgh circle. This big-nosed, long-headed, large-hearted disciple of Galen and Lucina, was a fine specimen of the eighteenth century country medical practitioner—hatted, coated, booted and spurred, *à la mode*. Wiry in build, thoughtful and successful in practice, aye ready with his ‘mull’ (*Scotticé* for snuff-box), and aye ready to help a neighbour as well as to uphold the interests and character of ‘canny Fife,’ he was among the most popular of men. The customs of the period were primitive and curious, and the practice of the healing art in rural districts was carried on in pack-saddle fashion and regularity. Dr. Goodsir would start from Largo on Monday, caparisoned for the week with drugs and surgical appliances, and not return home till Friday—as itinerant with his physic as the ancient Peripatetic with his philosophy. . . . To obviate the dangers of travelling by night, he carried a lantern, fastened by a strap above his knee. The bull’s-eye of the doctor’s lantern was often signalled, in moonless nights, heralding the comforting assurance of an obstetric deliverance. His regularity in his rounds vied with the carrier of His Majesty’s mails, and the saddle-bags of the one and surgical accoutrements of the other were similarly horsed, so that the Laird of Largo, scanning the roads, used to say: ‘It’s either the doctor or the post that’s coming.’”¹



EIGHTEENTH CENTURY DOORPLATE
FROM THE HOUSE OF DR. MUNGO
PARK AT PEEBLES

(Preserved in the Royal Scottish Museum of
Antiquities)

Another well-known Scottish practitioner at the end of the 18th century was Mungo Park, who studied medicine at Edinburgh from 1789 to 1791. After some years’ travel in Africa, recorded in his celebrated “Travels in the Interior of Africa,” he settled in practice at Peebles in 1799. He afterwards undertook another journey of exploration to the Dark Continent, from which he did not return.

¹ “The Anatomical Memoirs of John Goodsir.” Edited by William Turner, M.B., Edinburgh, 1868, Vol. 1, pp. 7 and 8.