ANIMAL TREATMENT IN EIGHTEENTH-CENTURY SCOTLAND

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The history of veterinary medicine as a discipline separate and distinct from human medicine rightly begins in the period from the late eighteenth century to the formation of the various veterinary schools at London in 1791 and Edinburgh in 1823. It was not until the foundation of the Royal College of Veterinary Surgeons in 1844 that the profession received formal recognition.

Before this the history of veterinary medicine cannot be separated from medical folklore, when the care and treatment of animals was almost entirely in the hands of farriers and horsemen, gipsies and wisemen using traditionally sanctioned forms of folk-cures and remedies.

Up until the middle of the eighteenth century the methods of most husbandmen and the customs of the country folk were but little removed from those of mediæval society. And although in the practices of a small but growing number there could be detected glimpses of a better and more rational understanding of rural conditions and events, the majority of the country folk still firmly believed in the supernatural. The immediate result of this primitive outlook and agricultural practice was that famines, widespread epidemics and murrains, which included various cattle diseases, were a common feature in animal husbandry.

The last seven years of King William's reign 1695-1702, the "dear years" of Scottish farming, were seven consecutive seasons of disastrous weather conditions when the harvests completely failed. This was followed, after a brief cycle of good years under Queen Anne by another harvest failure in 1709 which again produced famine. In the Hebrides during the whole of the eighteenth century, it has been estimated that one in every fourth crop was almost a complete failure (Handley 1953:13, 34).

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Such recurring cycles of "need years", i.e. years of food shortage and near famine, brought with them disease and epidemic outbreaks which were a constant and menacing burden at a time when animal care and breeding at its best was vitiated by dirt, ignorance and superstition. Ordinary safeguards, sanitation and prophylaxis were almost unknown and veterinary knowledge was of the most elementary kind.

In these circumstances, and under conditions where all rational conceptions of the causes of sickness and disease were absent, it is not difficult to see how easily the farmer, the cow-man and the stock-breeder came to be persuaded that these sicknesses and epidemics were the work of evil spirits.

An examination of the many forms of folk-cures and treatment which made up the stock of veterinary practice shows that they can be divided broadly into charm cures and amuletic cures. The distinction, however, lay not so much in the material of the cure, but in the method by which it was applied. The word charm, Latin *carmen*, means the chanting of a verse supposed to possess magical power, i.e. a spell. It has, however, a secondary significance denoting material things credited with magical properties, worn on or in close association with the object which it is designed to protect. The amulet belongs to this secondary classification of the physical charm. The words charm and amulet have thus a very wide connotation, and although they do not permit of a simple and rigid definition, it is sufficient, without qualification, to define them as follows. A charm operates indirectly and is usually expendable, while an amulet is permanent and operates directly, usually by contact.

The materials of the charm-cures covered a wide range and included remedies and prescriptions in the form of chants, pagan and christianised-pagan prayers; herbal remedies and natural elements such as salt, water and soot; and some cures derived from the belief in magical transfer. The active elements in amuletic cures were made up of natural objects, holed stones, rock crystal and coloured pebbles, and manufactured objects such as coins, ornamental pendants, prehistoric artefacts and various combinations of wool, wood and thread (Pls. X-XII).

Pagan and christianised-pagan chants, invocations and designed prayers used as curative and prophylactic charms

appear from their distribution to be concentrated mainly in the north of Scotland. Some of these were simple chants, others were complicated and lengthened by the inclusion of restricting conditions regarding time and place and also by the use of additional presumed active elements such as special water, herbs and plants.

Three representative examples will illustrate this point. The first is a simple chant in the form of a degenerate prayer (Mackenzie 1895:76), the second is a christianised version of a magical (sympathetic) rite (Henderson 1911:28), and the third is a simple prayer degenerated by the inclusion of various amuletic objects and restrictive practices (Carmichael 1928: 42-3). All three were used to cure disease in cattle attributed to witchcraft and the evil eye. In the first the following was chanted:

A foot in the sea, a foot on land
Another foot in his boat
For worm for swelling
For red sickness, for colic
For colic that is in thy belly
For that rock over there
A rugged crag that there is there
(Name of beast)
Health to thee, O beast!

In the second case the procedure was rather more complicated. Whenever a cow calved the calf was immediately removed before drawing milk from the cow. Milk was then drawn from four teats into a bottle, the cow-doctor so doing kneeling on one knee saying:

"May God bless these cattle folds this I am asking in the name of God, nor am I asking but for mine own."

The bottle was then tightly corked and hidden in a safe place and provided this bottle remained hidden and intact, the quality of the milk would remain unimpaired.

The third example, a cure for cattle and horses suffering from the ill effects of the evil eye, was handed down from male to female, from female to male and was efficacious only when thus transmitted.

Before pronouncing it over the sick animal, the "cow-doctor" bails water from a stream in the name of the Holy Trinity, into a wooden ladle. The water must come from a

stream over which the living and dead pass, and in no case is the ladle of metal. A gold wedding ring, a piece of gold, silver and copper are put in the ladle. The sign of the cross is then made, and a rhyme, the last few lines of which are quoted below, was repeated in a slow recitative manner:

The evil eye
Whether it be on man or on beast
On horse or on cow
Be thou in thy full health this night
(Name of animal)
In the name of the Father, the Son and the Holy Spirit.
AMEN

Some of the consecrated water was then given as a draught, and some was sprinkled over the head and back bone of the beast. In the case of a cow, the horns and the area between the horns were carefully anointed. Occasionally a woollen thread generally of the natural colour of the animal was tied round the tail. The remnant of the water, no drop of which must have reached the ground, was poured over the threshold flagstone. The skilled "cow doctor" apparently could distinguish whether it was a man or woman who had caused the sickness—if a man, the copper adhered to the bottom of the upturned ladle; if a woman, only the silver and gold adhered.

Simple recipes consisted of a confusion of magical herbs, common herbs and substances used magically, that is, in association with odd scraps of formulæ to be used at certain times and under certain limiting conditions. For example, in Orkney distemper was cured by a certain herb "callit melefour" (? *merefow*, milfoil), but it had to be plucked between the thumb and mid-finger while reciting "*In Nomine Patris, Filii et Spiritus Sancti*" (Dalyell 1834:22). And in Craignish, a cow-doctor always gathered his herbs—pearlwort, fig and moonwort on St. Swithins day, and made his concoctions with one foot in the chimney crook. The herbs had to be plucked not cut (Campbell 1902:12).

Rather more complex still were the limiting conditions associated with the use of the herb *möan* or *mothan* as a prophylactic amulet. This herb, said to be either the thyme-leaved sandwort or bog-violet, was found only on the top of a cliff or mountain where no animal had fed or trod. It had to be collected on a Sunday. Three tufts were selected, one was called by the name of the Father, another that of the Son and

the remaining tuft to be called by the name of the Holy Ghost. The finder then plucked the tufts and recited:

I will pull the *Möan*
The herb blessed by the Domnach
So long as I preserve the *Möan*
There lives not on earth
One who will take my cows' milk from me.

The three tufts were then wrapped in cloth, taken home and attached to the cow (Mackenzie 1895:32).

The most frequently recurring ingredients, or what may be termed active elements, in a great many of these recipes were urine, salt and soot. In parts of Scotland special virtues were attached to stale urine. Kept mainly for the purpose of scouring blankets and cloth it was also used until late into the century to cure and ward off disease. There were several ways in which it was applied but the most common method was to dip a wisp of straw in it, and sprinkle the animal, or draw the straw across its mouth.

Salt was in regular use for a variety of cures. In the Western Isles, for example, it was measured out with a thimble painted blue in the inside, into a cloth. Water poured through it into a bottle was then given as a drench to diseased cattle (Maclagan 1902:96). In South Uist, the cure for lumps or growths on horses was to cut into the lump and apply salt and water pickle so strong that a potato would float on it, to the open wound for several days (Shaw 1955:51). Rather similar, but for an unspecified complaint, Kintyre wisemen cured cows by giving them as a drench water, collected in three parts in the name of the Father, the Son and the Holy Ghost from a March burn, in which salt divided up in the same way had been dissolved. Some of the water was also poured into the cows' ears and over their backs (Maclagan 1902:176).

The Arran cure for ailing horses where the illness was thought to be brought on by the evil eye used soot. In one particular case a farmer at Whiting Bay was given three balls of soot wrapped in paper with the strict injunction not to expose the contents to the air or light until ready to use. The soot was mixed in water, and the mixture sprinkled over the horse, while its name was repeated three times. Some was put into each ear and the remainder mixed in with its food (Maclagan 1902:188).

The belief that disease could be transferred to or from an

object is very ancient and had a wide distribution. Transfer rites may take one of two main forms, transfer of a disease from an animal to an inanimate object such as water, stone or earth, and from one animal to another, occasionally through the agency of charm amulets. It was a commonly accepted belief among farmers all over Scotland that cattle ailments of every kind could be carried away and left on another farmer's land. The belief assumed such proportions in the northern counties that the Synod of Aberdeen in 1659 recommended "all ministers within the province to speak against charming, heathenish customs in cutting off the heads of beasts and carrying them from one Laird's land to another" (Stuart 1846: 250).

In Caithness, for example, to cure the *heastie*, a virulent form of distemper among cattle, a portion of the diseased beast was secretly transported from the owner's ground to the ground of a neighbour. The cattle of the latter sickened, while those of the former recovered (Dalyell 1834:108).

A blood disorder in black cattle known throughout Mull as the *black spauld* was thought curable by burying alive the first cow to be infected and driving the rest of the herd backwards and forwards over the pit (Ramsay 1888:446); and further south in the lowlands of Scotland *routing evill* or madness to which oxen were particularly susceptible, was cured by taking "one quick ox with one catt, and one grit quantitie of salt" and burying the ox and cat alive with the salt in a deep hole, so that "the rest of the guidis might be fred of the sickness or disease" (Sharpe 1884:99).

The same principle underlies the treatment in the north of Scotland for paralysis of the spine in sheep, cows and horses. This was thought to be caused by the grass mouse, the *lucha sith*, or fairy mouse, running across the animal when it was lying down. The cure was to trail a mouse, dead or alive, across the loins and spine of the animal in the name of the Trinity. The mouse was then buried (Carmichael 1928:323).

There were of course a great number of variations on this simple idea. In Lewis liver disease in cows was cured by placing a black cock between the legs of the sick cow, and in this position splitting open the bird's back and removing its heart. While the fowl was still gasping some water in which the heart had been dipped was forced down the cow's throat (MacPhail 1895:55-6). A calf's heart stuck with pins (Pl. XI, fig. 1) was found at Dalkeith (1812) in what had once been a

cow-house. According to the records, an unspecified disease, thought to be due to witchcraft, had broken out and spread among the cattle. To arrest the disease, the heart of one of the diseased beasts was taken out, stuck with pins, roasted and buried near the rest of the herd (Skene 1831:300).

This heart amulet is particularly interesting because it possessed the power of transference, and at the same time the enhanced virtue of punishing the witch supposedly responsible for the incidence of the disease.

Animal sacrifice was yet another variant on the transfer ritual. Throughout the British Isles animals were and have been until comparatively recent times sacrificed by farmers to avert and cure cattle disease. Now sacrifice, unlike the other elements of charm and amuletic cures, could not be ignored by the church; it would not be dissociated from a recognition of the divine nature of the power in whose honour it took place. And it was because of this feature more than any other that the full might and authority of the church was brought to bear in an effort to put it down as a sacrifice to the devil. For this reason it is not surprising that there should be now but few direct and evident survivals. The *modus operandi* followed the same general pattern for transfer cures except that, instead of burying one of the diseased animals, one of the prime and healthy beasts might be killed and buried, or buried alive.

Rock crystal balls, naturally perforated pebbles, worn, grooved and odd-shaped stones of unusual colour represent, because of their greater or more common availability, the amulet with the widest distribution. Although there appears to have been very little colour discrimination in the use of such stones, special significance seems to have been attached to the white or opaque variety.

Edward Lhwyd, keeper of the Ashmolean Museum, Oxford, in a letter written in 1699 from Linlithgow, records that in Scotland "they have the *Ombriæ pellucidæ*, which are crystal balls or depressed ovals, which were held in great esteem for curing cattle; and some on May Day put them into a Tub of Water, and besprinkled all their cattle with the water to prevent being Elf-struck, bewitched, etc." (Lhwyd 1719:99). A fairly common name in the highlands of Scotland for a rock crystal ball used as an amulet was *Leug Loug* or *Leigheagan*, and in a letter to the Rev. Robert Woodrow, quoted by Dalyell, the Scottish historian, it is defined as "*Leig*. Being a great pice of the clearest of cristall, in forme ane halfe ovall, near to the

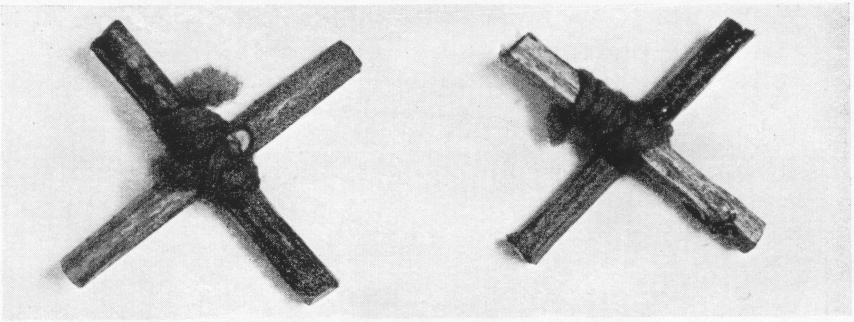

FIG. 1.—Rowantree Crosses from Corgarff, Aberdeenshire.
Bound with red thread (knotless) these were tied to animals or suspended over byre-doors to keep the cattle free from disease.
Specimens in Pitt Rivers Museum, Oxford.

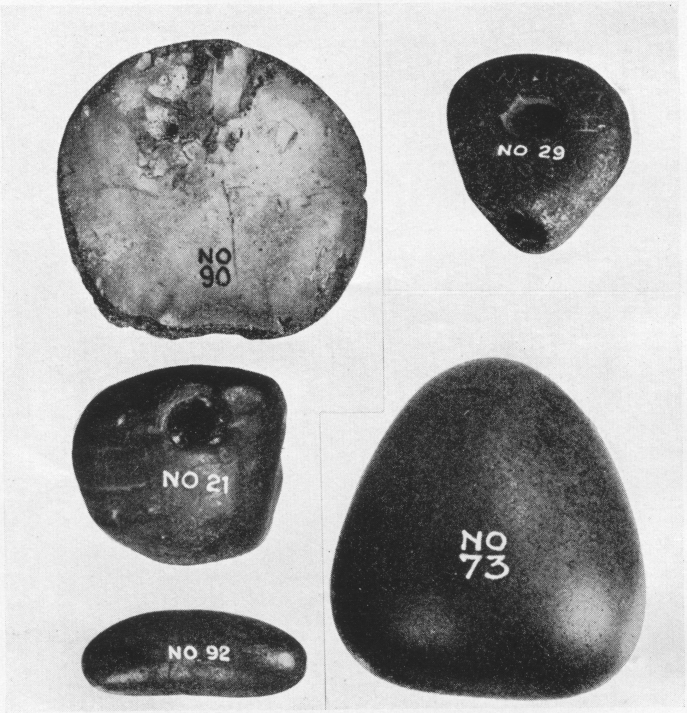

FIG. 2.—Stone Amulets.
No. 90. Disc of yellow flint, $2\frac{3}{4}$ inches diameter. Found in a cow-byre in Slains, Aberdeenshire.
No. 29. Small pebble, 2 holes partly artificial, inscribed William H. Scott found in a cow-byre in Dumfriesshire.
No. 21. Small pebble hung in a cow-byre at Cumbernauld, Dunbartonshire.
No. 73. Dark red heart-shaped pebble from Whalsay, Shetland.
No. 92. Pebble of mottled serpentine from Ollaberry, Shetland.
These were all used as curative amulets for cattle ailments and to recover milk abstracted from cows by means of witchcraft.
Specimens in National Museum of Antiquities of Scotland, Edinburgh.

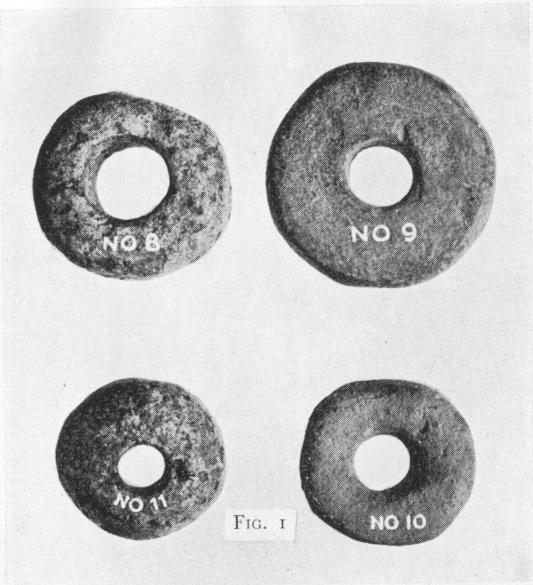

FIG. 1

FIG. 1.—Spindle-whorl amulets or Adder-stones from Lewis. They were used there as curative amulets in the cure of snake-bitten cattle.

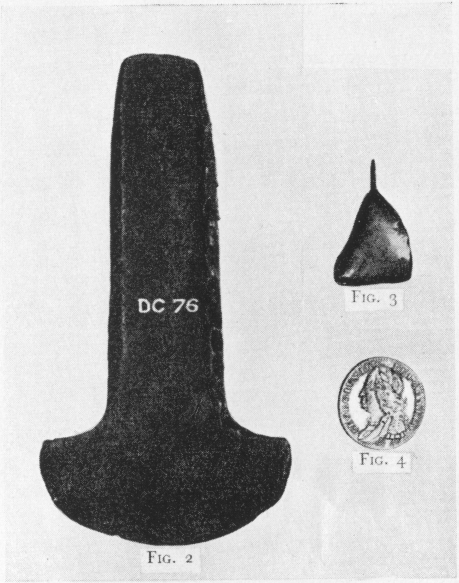

FIG. 2

FIG. 2.—Bronze Age axe from Perth. Found in a cow-byre where it had been used to preserve the cows' milk yield.

FIG. 3

FIG. 3.—Elf-arrow Amulet inscribed *saighead shith.* Typical example of a neolithic flint arrow-head mounted for suspension in water. This medicated water was used to cure various cattle ailments, preserve milk and preserve the milk yield.

FIG. 4

FIG. 4.—Silver 6d. George III from Pitsligo. The amulet was put into the milk cog on first milking after calving, to preserve the milk.

Specimens in National Museum of Antiquities of Scotland, Edinburgh.

PLATE XI

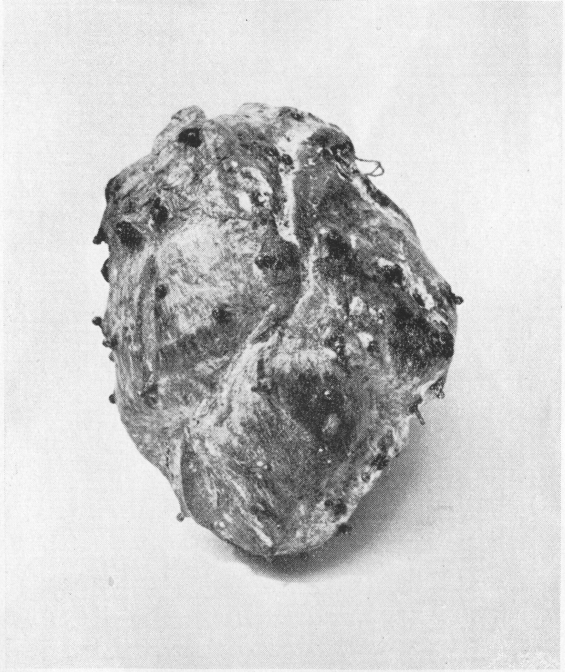

FIG. 1.—Heart amulet from Dalkeith, Midlothian.
Specimen in National Museum of Antiquities of Scotland, Edinburgh.

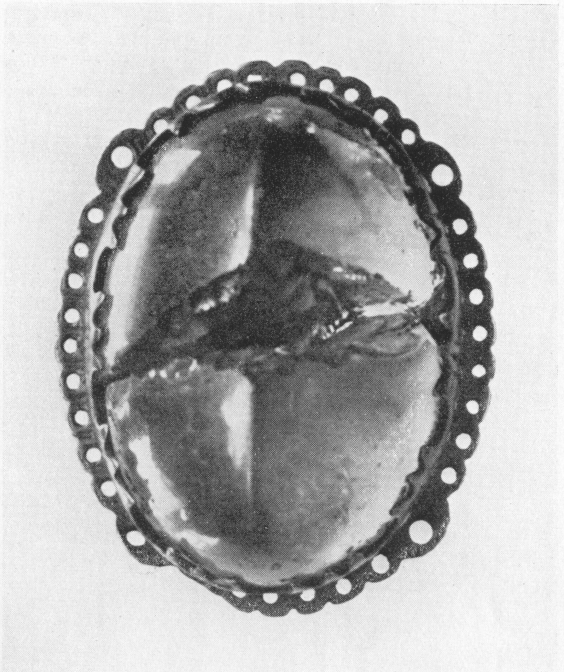

FIG.—2. McLean Loug amulet from Ross of Mull.
Ridged rock crystal $1 \times 1\frac{3}{4}$ inches mounted for suspension in water.
By permission of Major Colin McVean.

bigness of a littel hen eage: but I find it being of great use for peple that hes coues, being good for many diseases, they sik great monies for it, as forty punds Scots" (Dalyell 1834:679-80).

An oval water-worn pebble of crystal formerly kept over the lintel of the byre door at Cachladhu croft near St. Fillans, Perthshire, was thought to protect the cattle from all kinds of unspecified diseases. In addition to using the stone, the animal had to be given, as a drench, water from a stream over which crossed the living and dead. Into this water was placed one or two pieces of silver money "in the name of the Father, of the Son, and of the Holy Ghost" (Black 1892-3:454).

The *Clach-na-Brataich* or "Stone of the Standard", an unmounted ball of rock crystal 1¾ inches in diameter, has been in the possession of the clan Donnachaidh since the year 1315. A manuscript written about 1777, states that "it is still looked upon in the Highlands as very Precious on account of the Virtues they ascribe to it, for the cure of diseases in Man and Beasts, particularly for stopping the progress of an unaccountable mortality amongst cattle. People came frequently from places at a great distance to get water in which it had dipt for various purposes". The last occasion on which it was used appears to have been sometime between 1823 and 1830, when it was dipped with great ceremony by the chief of the clan, in a large china bowl filled with water from a "fairy well", after which the water was distributed to a number of farmers for medicinal purposes (Simpson 1860-2:219-20; Paton 1886-7: 235).

In Inveraray, in 1702, cylindrical white stones, called bats-stones, because they "heall horses of the worms they call bats", were boiled in water and the infusion given to horses suffering from intestinal worms (Dalyell 1834:152). Two stones of coarse dark basalt known as the *Clach Spotach*, or "Spotted Stone", and the *Clach Ruadh*, or "Red Stone" enjoyed a certain amount of fame in the north of Scotland as animal cures. The first was used "for rubbing horses suffering from stoppage of the urine" and the other "for rubbing the udders of cows when hardened and inflamed by disease" (Black 1892-3:450-1). In South Uist the *ruaidhe*—a rash causing swelling of the udder and retention of the milk, was cured by rubbing the swollen teat with a stone from a march burn (Mackenzie 1895:54-5). In other districts the stone was taken from a burn over which the living passed and the dead were carried.

As a rule, where these stones are used as cure amulets, they

are either dipped in water, and the water given as a drench to the animals, or the affected part of the animal, or sometimes the whole animal, is rubbed with the stone.

Water obtained from a stream over which the living passed and the dead were carried was known as "dead-water", and the belief in its medicinal virtues persisted up to the beginning of the present century. William Macpherson, of Bogamore, was advised to give his ailing stock a drench of it, but it had to be collected in a "three girdit cog", in the evening and in complete silence (McPherson 1929:253-4). Its use in association with a wide variety of charm cures was regulated by many diverse conditions which differed from one district to another. Three conditions, however, appear to be common. In the first instance it must be taken from a stream over which the living and dead pass, from a south running stream or from a fairy well. In the second instance the water must be brought unspoken. The bearer must keep silent, and not infrequently there was the further condition that none must speak to him or her. To ensure that this condition was satisfied there is evidence to show that on occasions the bearer took a companion with him. Thirdly any surplus water must be got rid of in such a way that no animal could be infected by coming into contact with it. Usually it was returned to the stream from which it was taken or any fast running stream, so that its powers would quickly be dispersed.

The use of fire and smoke was frequently resorted to both as a preventive and antidote to cattle disease. Fires were made on Mid-Summer Eve and Hallow Eve when animals were made to pass through the smoke to be rid of disease. In the event of violent epidemics, however, a special fire ritual known as "raising needfire" was carried out. Indeed the practice became so commonplace that various Scottish presbyteries issued general rules for the apprehension of offenders. The earliest record is for Grange (Banffshire) where the Minister regretted that in February 1644 there was "neid fyre" raised for the curing of cattle (Stuart 1843:51). As late as 1850 needfires were still being raised in Dallas as a cure for murrain (Gordon Cumming 1883:194).

The ritual itself followed a fairly well defined pattern. In Moray, for example, on the outbreak of a particularly contagious disease the following ceremony was carried out. First, all fires were extinguished in the surrounding district. Then "fire was forced with a wheel or by rubbing a piece of dry

wood upon another, and therewith burn juniper in the stalls of the cattle that the smoke may purify the air about them; they likewise boil juniper in water which they sprinkle upon the cattle. This done the fires in the houses were rekindled from the forced fire" (Shaw 1775:248).

By association, manufactured objects of almost every description were thought to have magical powers and were used quite indiscriminately as curative and prophylactic amulets. Prehistoric artefacts such as neolithic flint arrow-heads were constantly being turned up in the soil and to account for the similarity in their shape and size it was thought that they were thunderbolts or missiles of the gods and as such were believed to possess magical powers. This belief was, in fact, extended to include practically all prehistoric artefacts. Inscribed charms on paper, ornamental brooches and pendants, coins, wood and stones were all used singly and in various combinations.

The *Clach Bhuaidh* or "Powerful Stone", a crystal ball five and a half inches in diameter mounted in silver, belonging to Archibald Campbell of Glenlyon, was used for curing diseased animals. The pendant was dipped in water, but the water had to be carried to the amulet, and, to make more certain that the water was sufficiently medicinal and effective, the stone, during the process, had to be held in the hand of the laird. The water was then given as a drench (Black 1892-3:441).

A similar but slightly smaller amulet, the *Clach Dearg* or "Stone of Ardvoirlich", is a ball of rock crystal mounted in a setting of four silver bands, with a ring at the top for suspension. The belief in its virtues as a cure for diseased cattle continued well into the latter half of the nineteenth century, and as in the case of the *Clach Bhuaidh*, farmers came from widely different parts of the countryside to get supplies of water in which the amulet had been dipped. Various conditions, however, had to be observed by those who wished to benefit by its healing powers. The person who came for it had to draw the water himself and bring it into the house of Ardvoirlich in a vessel into which the stone was to be dipped. A bottle was then filled and carried away, but during its transport home it must not touch the ground nor be taken into any house by the way, otherwise its magical virtues would disappear. If a visit had to be paid, then the bottle was carefully left outside (Simpson 1860-1:220-1).

The Keppoch Amulet, a crystal oval attached to a silver

chain, was used in a similar way except that while the stone was being dipped in the water, a Gaelic incantation invoking St. Bridget was pronounced over the sick animal (Black 1892-3:442). The reference here to the Celtic Bride or Bridget, derives from the well *Tobar Bhride* (Bridget's Well) near Keppoch from which the water into which the amulet was dipped had to be taken. St. Bridget was one of the seven saints specially invoked for the protection of sheep and cattle and she is often depicted in Christian art holding a cow, standing by a barn or with milk pails; one of her titles was "Christ's milkmaid".

Probably the most widely known and celebrated lithic amulet used in the cure of disease was the Lee-stone or Lee-penny. The amulet consists of a heart-shaped red pebble of carnelian agate set in an Edward IV silver groat. When it was used for healing purposes, a vessel was filled with water, the stone was drawn once round the vessel and then dipped three times in the water. For curing cattle it was "put into the end of a cloven stick, and washen in a tub full of water, and given to cattle to drink infallibly cures almost all manner of of diseases". People, it is reported, "came from all airts of the kingdom with deseased beasts". During the reign of Charles I it achieved a triumph. It was loaned to the corporation of Newcastle, on surety of £6000, to cure a cattle plague which was sweeping through the area. The plague abated, and the corporation offered to forfeit the bond to keep the stone. The offer, however, was rejected.

About the middle of the seventeenth century, the Reformed Protestant Church of Scotland with the full weight of her authority zealously endeavoured, as the English Church had long before done, to extirpate all "heathenism" and superstitious practices which were carried out with various spells and stones. They left, however, other equally superstitious practices quite untouched. Thus, while they threatened the seventh son of a woman with the "paine of Kirk censure" for curing the "cruelles" (scrofulous tumours and ulcers) by touching them, they still allowed the reigning monarch this power (Charles II alone touched 100,000 such patients). The Synod of Aberdeen showed a similar discrimination over the Lee-stone when a complaint was lodged against Sir James Lockhart, "anent the superstitious using of ane stone, set in silver, for the curing of diseased cattle". But its power over cattle was so universally believed in and resorted to as an everyday practice by "husbandmen of the best sort" that the

Synod judged it expedient to exempt it from the anathema attached to various other superstitious practices (Simpson 1860-1:222-4).

Lengths of wool, thread and yarn in different compositions, combinations and colours, possessed more or less the same magical virtues. Known as "wresting threads" and "spraining strings", they were made up from single threads and multiple-ply yarns of various lengths. Red was the predominant colour, but often a thread of the same colour as the animal to be treated, was chosen. Where the treatment was for sprains and bone fractures, knots, either three, seven or nine, were tied in the middle and ends.

One method of making these strings has recently been described by a practitioner in Beauly (Inverness-shire).[1] "The spraining string consists of six equal strands of wool. Their length varies according to where you want to put the string round. Do not break. And you put a knot at each end, and one in the middle". While preparing the wool for this purpose, one should reverently mutter the words: "Jesus went on horseback; and He sprained His foot. He said: 'Bone to bone, Flesh to flesh. Sinew to Sinew. Blood to blood', And His flesh was made whole".

There was a marked uniformity in the way in which the thread was applied. It was tied to, wound round or laid on the animal while the cow-doctor intoned a prayer or "rhymed incantation". During the entire operation the thread was not allowed to touch the ground, the knots were cast on the thread in silence, and the thumb and forefinger must not be used. The traditional reason given for this is that with them Eve plucked the fruit and so they are not blessed.

The rationale of such beliefs and customs is fairly simple. They depend upon the notion of sympathetic magic in its lowest stages of conception, namely, similarity and imitation. To the primitive mind the reality of spirits seemed so clear that all natural phenomena were interpreted in terms related to their motives. The use of magic and semi-religious ritual may, therefore, be regarded as a primitive experiment designed to control these spirits by sympathetic magic.

The fundamental rule of all magical reasoning is that casual connection in thought is analogous to causative connection in fact. Like suggests like by the mere association of ideas, so that like influencing like produces analogous effects in practice. This is not remarkable, for exact coincidence would be very

powerful in producing and stimulating belief in the association on events and their repetition. By a further extension of this reasoning, the part suggests the whole, thus giving rise to the idea of a sympathy or identity existing between an original or any part and its image or substitute.

Sickness and disease could, therefore, be cured by transferring it from the afflicted beast to an animate or inanimate object by bringing the two into contact. Spraining threads, strings and wool were tied round or laid on the animal. In this way the disease was transferred to the threads which were removed and destroyed. Burying or burning were the obvious and convenient means of destroying the threads, but any method which assured rapid disintegration could be used, as, for example, casting into running water.

For bone fractures knots were cast on the thread to simulate the knitting or tying together of the bone. Similarly, a limb, heart or other part of a diseased animal was buried or burnt, so that the disease would waste away and eventually die out of the rest of the herd as the thread, limb or heart decayed and disintegrated. The supernatural virtues of stones and other amulets were conveyed via the agency of the water in which they were immersed, by sprinkling the animal or by direct contact by tying the amulet to the beast or in water given as a drench.

The original rituals were probably simple imitative rites, pagan chants and the use of amulets whose power lay in their shape, colour and association. By the time of the mediæval period cumulative tradition, the adoptive and sanctioning action of the Christian church had imparted a certain air of authenticity to them. Invocation of Christ and the Saints was substituted for the invocation of spirits; hence we find pagan and christianised remedies and recipes, Saints relics (i.e. St. Fillan's Crozier for cattle)[2] and amulets in the form of the cross, being used side by side with equal credulity.

During the next few centuries these rituals and recipes acquired a degree of sophistication, due mainly to the pseudo-scientific interpretation of natural and supernatural phenomena culminating in the Doctrine of Signatures which reached its climax in the late seventeenth century.

The charms and amulets with their associated ritual as we find them in the eighteenth and nineteenth centuries represent the detritus of the early magical beliefs. Their real significance had been forgotten so that their continuance into the eighteenth century was traditionally sanctioned by usage

fostered firstly by the incredulity of people only too willing to accept any form of relief, no matter how absurd or superstitious; and secondly by the need for the local wise-man or cow-doctor to maintain his position against the advancing front of rationalism and veterinary knowledge.

To do this he developed the charm cure in two ways: the first by using ingredients such as herbs and water which by wide experience and observation had been found medicinal; secondly by investing the cure with an aura of mystery by the use of meaningless chants, snatches of degenerate prayers, lengthening and increasing the number of presumed active elements, and introducing conditions to be fulfilled, so minute and exigent, as to make the satisfying of them almost impossible. Failure of a cure, therefore, could readily be attributed, not to any lack of skill or knowledge on the part of the "cow-doctor", but to the omission of some particular detail outside his direct control.

In view of this, there may be a tendency rightly to dismiss the old "cow-doctor" and his methods of curing and healing. Before we do so, let us look again at treatments prescribed by "cow-doctors" in Scotland, England and Ireland. These show that in spite of the superstitions and absurd features in them they contain a substantial element of rationalism, indeed a high degree of primitive reasoning based on long and acute observation.

In Scotland, the *connach*, a disease prevalent among cattle, was thought to be due to the cattle feeding where the connach worm had crawled. The prescription was to sprinkle the cattle or make them drink an infusion of the leaves and twigs of a tree in which one of these worms plugged up in an auger hole had been left to perish. In England, a similar cure was used for paralysis caused by a shrew mouse crawling over an animal's limbs. And precisely the same remedy was used in Ireland where murrain was attributed to a sting on the mouth from the larvæ of a particular species of moth. In all three cures we see the reasoning that led to early inoculation and eventually to vaccine treatment.

NOTES

[1] Private communication from Mr. Alasdair Alpin Macgregor. London 1956.

"Mrs. Fraser living at Beauly, in Inverness-shire, assured Alasdair Alpin Macgregor recently that she is adept at ensuring a cure for man

or beast by the application of what is known in Celtic Scotland as the spraining string, many of which her mother made and applied efficaciously. Her grandfather, who, incidentally, was well-known in that locality in his day on account of his ability to render harmless the Evil Eye, was also expert in curing by this method."

[2] Stevenson, R. B. K. *List of Charms in the National Museum of Antiquities of Scotland.* Prepared for the International Conference on Celtic Folklore, Stornoway, October 1953.

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