Simple Medicines for the Farm, and their Properties.*

By C. E. Gray, M.R.C.V.S., Principal Veterinary Surgeon.

The following is a list of simple medicines which it would pay the farmer to keep always on hand for the treatment of cases of illness and accidents amongst stock:—

Epsom salts, 7 lb.; raw linseed oil, 1 gallon; turpentine, 1 quart; tincture of opium, 12 ounces; bluestone, 1 lb.; and stockholm tar, 1 gallon; which might be supplemented by calomel, 1 ounce (divided into 8 doses), rape oil, 1 quart; carbolic acid, 8 ounces; corrosive sublimate (1 bottle of Burroughs Wellcome's soloids); one or two curved needles for stitching wounds; a hank of silk; one or two calico bandages; a pound of cotton wool or a bundle of tow, and a supply of Cooper's dip, which the farmer would probably have on hand. With these he would be fairly well prepared to deal with any of the usual cases of illness or treat any ordinary case of accident amongst his stock. This list might, of course, be lengthened with advantage, but the articles mentioned are really indispensable.

It is hardly possible to dwell at length on the properties of the various medicines named, but we will briefly mention those which are most important, and the doses of each:—

Epsom Salts.—A valuable laxative and aperient, particularly suitable for cattle. *Dose*: Cattle, 1 lb. to 1½ lb.; sheep, 3 ounces to 6 ounces.

In administering this medicine it should be remembered that it is most effective if given with plenty of water, and, best of all, with warm water.

Turpentine.—We have no hesitation in describing turpentine as one of the most valuable medicines for general purposes that a farmer can have; given with linseed oil, together with tincture of opium, it makes a most useful colic drench; and for a horse a dose of 1½ ounces of turpentine (three tablespoonfuls), 2 ounces of tincture of opium (four tablespoonfuls), shaken up in a bottle of raw linseed oil, makes a very effective colic drench, which can be repeated in an hour if the animal does not get relief. Given this way, but without the tincture of opium, it is very serviceable in cases of hoven. Turpentine is also a very active worm medicine, and, when given for this purpose, should be mixed with linseed oil; lambs and kids take a teaspoonful of turpentine; calves a tablespoonful; dogs 20 to 30 drops; ostriches from a dessertspoonful for a three months' old chick to two tablespoonfuls for a full-grown bird.

It should be remembered that worm medicines are most likely to be effective when the patient has been well fasted before the medicine is administered.

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Externally, turpentine is a useful antiseptic, and a dressing of turpentine—one part to six parts of rapè oil—makes an excellent application for wounds, promoting healing and keeping off flies. Applied pure, it is useful in cases of injuries to the foot, as, for example, when a horse has picked up a nail, the application of a little pure turpentine will cleanse the wound as a preliminary to applying a poultice. Turpentine is also useful for arresting bleeding from a wound, and, for this purpose, the wound may be plugged with a wad of cotton wool or tow wetted with turpentine, the plug being kept in position for twenty-four hours. It should not, however, be applied pure to the skin of any animal as it is extremely irritating.

Tincture of Opium.—A valuable sedative, most useful for allaying pain and relieving irritation. *Dose*: Horse, 1 or 2 ounces (two to four tablespoonfuls); cattle 2 to 4 ounces; sheep, one to two teaspoonfuls.

Combined with linseed oil and lime water, a bottle of each, with four or five tablespoonfuls of tincture of opium, it is effective in cases of tulp poisoning, and, as already mentioned, may be given with turpentine and linseed oil in cases of colic.

Bluestone.—An excellent worm medicine, and useful as an occasional application to unhealthy wounds.

Given internally, it must always be well diluted; calves about six months old will stand about 30 grains dissolved in at least half a pint of water; for sheep, dissolve 1 lb. in 60 bottles of water, and give from $1\frac{1}{2}$ ounces to 5 ounces, according to age—quantities recommended by Dr. Hutcheon for the treatment of wire worms being as follows:—

For lambs	3 to 6 months	...	... $1\frac{1}{2}$ to 2 ounces.
,,	6 ,, 9 ,,	...	... 3 ,,
,,	9 ,, 12 ,,	...	... $3\frac{1}{2}$,,
,,	12 ,, 18 ,,	...	... 4 to $4\frac{1}{2}$,,
,,	18 months and over		... 5 ,,

It should be remembered that these are full doses, and if animals are at all debilitated and out of condition it is well to try the effect of the dose on a few of the weaker animals in the flock and to wait a few days and note the effects before dosing the rest. Like turpentine, bluestone should always be given after the animals have been fasted, sheep being fasted from 20 hours to 30 hours before being dosed, and being kept away from water for the rest of the day on which they are dosed. Care must also be taken to administer the medicine slowly, otherwise some of it may find its way into the lungs and cause death by setting up inflammation of the lungs.

Stockholm Tar, as a worm medicine, may be given to sheep instead of bluestone. For the treatment of wire worm the dose for sheep is one to two tablespoonfuls on the tongue; the dose should be repeated two or three times with an interval of four or five days between the doses. Externally, mixed with washing soda and water, in the proportion of one part of stockholm tar and 6 ounces of washing soda to 3 gallons of water, it is useful for clearing ticks from the ears of cattle; and mixed with finely powdered bluestone it is an excellent application in cases of footrot in sheep.

Calomel.—A very valuable liver medicine, useful in cases of gall-sickness. *Dose*: Cattle, 1 drachm (the eighth part of an ounce); for sheep, 10 grains. For gall-sickness in cattle give the above dose of

calomel shaken dry on the back of the tongue, and follow this in about eight hours' time by a dose of epsom salts (1 lb. dissolved in six bottles of warm water). Calomel is also useful in biliary fever in dogs, but, to have any good effects in cases of this disease, it needs to be given in large doses (20 grains for a dog about the size of a bull terrier).

Externally, applied dry, it is useful for drying up small wounds and saddle-galls; and a little of the dry powder blown once a day into the eye for two or three days often clears up the cloudy appearance commonly seen in the eyes of cattle which have suffered from inflammation of the eyes.

Rape Oil is a bland unirritating oil, useful as a dressing for wounds when mixed with turpentine or carbolic acid. (See carbolic acid and turpentine.)

Raw Linseed Oil is a laxative, particularly useful for horses and calves; given in conjunction with turpentine and tincture of opium, in quantities already mentioned, it forms an excellent colic drench. Mixed with equal parts of lime water it forms what is known as carron oil, a most soothing application for burns and scalds, and, in this form, with the addition of three or four tablespoonfuls of tincture of opium, and given to the extent of two bottlefuls, it is serviceable in cases of tulp poisoning. *Dose*: For horses, 1 to 2 pints; calves, up to 6 ounces; sheep, up to 6 ounces. It may also be given with carbolic acid, quinine, and calomel in the treatment of redwater—for this purpose it should be given in the following manner:—

Calomel ... ... 1 drachm (60 grains);
Carbolic acid ... ... 1 drachm (one teaspoonful);
Quinine ... ... 2 drachms (two piled teaspoonfuls);

well shaken together in a pint of raw linseed oil, to be followed after a few hours by a similar dose from which the calomel has been omitted and the quantity of oil reduced to 12 ounces. The latter dose may be repeated every twelve hours as long as necessary, but, to be of benefit, must be begun early. Mixtures containing carbolic acid must always be given slowly and carefully, otherwise there is some risk of suffocating the patient.

Carbolic Acid.—A most useful application for wounds; it must not, however, be applied pure, but should be mixed with water or oil in the proportion of one part of carbolic acid to twenty of water, or ten of oil. Externally it is given, combined with calomel and linseed oil, in the treatment of ordinary redwater (see linseed oil).

Corrosive Sublimate.—A very powerful antiseptic; one tabloid dissolved in three pints of water, making a solution of 1 in 3000, forms a useful eye lotion in those cases of inflammation of the eyes so frequent amongst sheep and cattle at certain seasons—used for this purpose it should be squirted on the surface of the eyeball once or twice a day with a glass syringe. A solution of the same strength may also be applied to wounds.

Cooper's Dip owes its medicinal properties largely to the arsenic which it contains; is a very useful blood medicine and one which is very effective for the treatment of worms; in addition to being an excellent dip for scab it is used as a preventive of geilziekte. For worms in lambs or kids, two tablespoonfuls, or 2½ ounces, should be

mixed in 1 gallon of water (six whisky bottles), and thoroughly stirred; the dose of this solution for lambs or kids is 1 ounce (about two tablespoonfuls), for older animals 2 ounces or 3 ounces. It may also be given dry, mixed with salt, in the proportion of one part of dip to ten of salt; of this the dose for sheep is one teaspoonful, two or three doses given at intervals of three or four days often suffice to check mortality from geilziekte when it has made its appearance amongst a flock.

History of Merino Sheep.

By C. J. SCHUURMAN, Division of Sheep and Wool.

MANY theories have been advanced as to the origin of the Merino sheep. Some authorities go as far as to give the north of Africa and Asia Minor the honour to being the native land, but seeing that we have no authentic proof of this, Spain can justly be called the home of the Merino.

The origin of the name Merino is also somewhat obscure. Some authorities say it is derived from Marittana or Merimas ("having crossed the sea"); this no doubt refers to the Merino sheep coming from the north of Africa. A better explanation, and the one now generally accepted, is that it is derived from the Spanish word "Merino," which means a fugitive. The Spanish phrase "Oregas Merino," meaning travelling sheep, refers to the practice of pasturing the sheep during the summer months in the mountainous districts and during the winter months on the plains. This custom is still in vogue in Spain and is followed to a certain extent in South Africa, viz., in the eastern Transvaal, Orange Free State, and Cape, where during the winter months the sheep are moved to the low veld.

This travelling of the sheep, called "Mesta" in Spain, was arranged by a tribunal, whose duty it was to direct operations of sheep's travel, and was a privilege granted only to the Crown, the aristocracy, and some convents.

No doubt the original Merinos in Spain during the early centuries were practically all of the same type, and, taking this for granted, then the existence of so many types of Merinos in the beginning of the seventeenth century must be accounted for in some other way.

Climate, environment, and manner of treatment made their presence felt in Spain, and later on when tracing the steps of the Merinos, as they were imported by other countries, the greater difference in types will be more apparent.