(1.) *SHEEP, n.; plural like wise *sheep; [sheep, Saxon; of which the plural was *fæg; *sjæap, Dutch.] 1. The animal that bears wool; remarkable for its docility and innocence.—

Fire the brambles, scatter the birds, and sleep

In wholesome wat er-falls the fleecy sheep. Dryd.

—There are two sorts of ideas; one of single substance, as they exist separately, as a man or a sheep.

Levi. 4. [In contempt.] A foolish silly fellow.

Annoyworth. 3. [In theology.] The people, considered as under the direction of God, or of their pastor.—We are his people, and the sheep of his pasture. Psalm.

(2.) *SHEEP, in zoology. See Ovis and WOOL.

(3.) SHEEP, ADVANTAGES ARISING FROM, TO MANKIND. Among the various animals with which Divine Providence has blessed the world for the use of man, none is to be found more innocent, more useful, or more valuable, than the sheep. The sheep supplies us with food and clothing, and finds ample employment for our poor at all times and seasons of the year, whereby a variety of manufactures of woollen cloth is carried on without interruption to domestic comfort and loss to friendly society or injury to health, as is the case with many other occupations. Every lock of wool that grows on its back contributes to the support of staplers, dyers, spinners, weavers, carders, combers, spinners, spoolers, warpers, quellers, weavers, fuller, tuckers, buriers, hearers, spinners, dyers, and packers, who, one after another, tumble and twist, and bale, and boil, this raw material, till they have each extracted a livelihood out of it; and then comes the merchant, who, in his turn, ships it (in its highest state of improvement) to all quarters of the globe, from whence he brings back every kind of riches to his country, in return for this valuable commodity which the sheep affords.

Besides this, the useful animal, after being deprived of his coat, produces another against the next year; and when we are hungry, and kill him for food, he gives us his skin to employ the fellmongers and parchment makers, who supply us with a durable material for covering our clothes, rights and polichrots; and if our enemies take the field against us, supplies us with a powerful instrument for routing our courage to repel their attacks. When the parchment-maker has taken as much of the skin as he can use, the glue-maker comes after and picks up every morsel that is left, and therewith supplies a material for the carpenter and cabinet-maker, which they cannot do without, and which is essentially necessary before we can have elegant furniture in our houses; tables, chairs, looking-glasses, and a hundred other articles of convenience. And in ablation of the fun,
sheep supplies us with an artificial mode of
light, whereby we preserve every pleasure of do-
metic society, and with whose assistance we can
continue our work, or write or read, and improve
our words, or enjoy the social mirth of our friends.
Another part of the slaughtered animal supplies
us with an ingredient necessary for making go-
good common soap, a useful bure for producing clean-
liness in every family, rich or poor. Even the
horns are converted by the button-makers and
turners into a cheap kind of button, tips for
bows, and many useful ornaments. From the
very trotters an oil is extracted useful for many
purposes, and they afford good food when baked
in an oven. Even the bones are useful also; for
by a late invention of Dr Higgins, they are found
when reduced to ashes, to be a useful and essen-
tial ingredient in the composition of the most
artificial bone in ornamental work for chimney-
pieces, concert of rooms, houses, &c., which
renders the composition more durable by eff.23
ually preventing its cracking. This meek unoffen-
sive creature can stand where every other animal
has been before him and grazed all could find; and
if he takes a little grain on our Downs or in our
fields, he amply repays us in the richness of the
manner which he leaves behind him. He pro-
tects the lands from the cold wintry blast. By
providing them with the softest leather gloves.
Every gentleman's library is also indebted to him
for the next binding of his books, for the sheath
of his sword, and for cases for his instruments; in
short, there is hardly any furniture or utensil of
life but the sheep contributes to render either
more useful, convenient, or ornamental.

(4.) Sheep, famed for fine wool, and oth-
er qualities. See Rural Economy, Part IV. & V.
Wales breeds a small hardy kind of
sheep, which has the belt tucked fleed, but the
wool wool of all. Nevertheless it is of more
endeavour use than the finest Sevillian fleeces; for
the benefit of the famed manufacture is uni-
gerably known. The sheep of Ireland vary like those
of Great Britain; those of the south and east
being large and their fleeces rank; those of the north
and the mountainous parts small and their fleeces
fleeces in the same manner differ in degrees of
degree. Scotland breeds a small kind
in Shetland, and their fleeces are remarkably fine.
But the New Leicesterhire breed is the most fah-
bour and the most profitable breed in the
island. (See Rural Economy, Part IV. & V.)
Joseph Alton of Clifton, who raised himself from
a plough boy, was the first who distinguished himself
in the midland counties of England for a su-
prior breed of sheep. How he improved his
breed is not known; but it was customary
for eminent farmers in his time to go to Clifton in
summer to choose and purchase ram-lambs for
which they paid two or three guineas. This man
was succeeded by Mr Bakewell; and it may rea-
sionably be supposed that the breed, by means of
Alton's stock, had passed the first stage of im-
provement before Mr Bakewell's time. Still, how-
ever, it must be acknowledged, that the Leicester-
hire breed of sheep owes its present high state of
improvement to the ability and care of Mr
Bakewell.

(c) Sheep, feeding on. This subject is pre-
try fully treated of, under Rural Economy,
Part IV. Sect. V. and X. The feeding sheep with
turnips is a great advantage to the farmers. When
they are made to cut turnips they soon fatten,
but there is some difficulty in bringing this a-
about. The old ones always refuse them at first,
and will sometimes till almost famished; but
the young lambs fall to at once. The common
way of turning a flock of sheep at large into a
field of turnips, is very disadvantageous, for they
will thus destroy as many in a fortnight as would
keep them a whole winter. There are three oth-
er ways of feeding them on this food. The
first is to divide the land by hurdles, and allow
the sheep to come upon such a portion only at a
time as they can eat in one day, and so advance
the hurdles further into the ground daily till all
be eaten. This is infinitely better than the for-
mer random method; but they never eat them
clean even this way, but leave the bottoms and
outsides scooped in the ground; the people pull
up these indented with a fork, and lay them
before the sheep again, but they are commonly
so fouled, that they do not care for them. The
second way is by enclosing the sheep in hurdles, as
in the former; but in this they pull up all the turn-
ips which they suppose the sheep can eat in one
day, and daily remove the hurdles over the ground
whence they have pulled up the turnips; thus
there is no waste, and less expense, for a proper
may in two hours pull up all those turnips, the
remaining of which would have employed 3
or a labourer 3 days to get up with their crakes
out of the ground trodden hard by the feet of the
sheep; and the work, that as in the method of
pulling up first, the turnips are eaten up clean;
this way, by the hook, they are waited, the
sheep do not eat any great part of them, and when
the ground comes to be tilled afterwards for a
corn of corn, the fragments of the turnips are
seen in such quantities on the surface, that half
the crop at least must have been wasted. The
third method is to pull up the turnips, and re-
Sheep, folding of. See Rural Economy, Part IV. Sect. X. § 11.

Sheep, Mr. Bakewell's improved breed of. The manner in which Mr. Bakewell raised his sheep to the degree of celebrity in which they deservedly stand, is, notwithstanding the rapidity of the improvement, and its being done in the day of two centuries ago, being a thing in dispute; even among men high in the profession, and living in the very districts in which the improvement has been carried on! Mr. Bakewell alone is in possession of the minute of his own improvement; and the public can only hope that at proper time the facts may be communicated for the direction of future improvers.

Whenever this shall take place, it will most probably come out that no crook with any alien breed whatever has been used; but that the improvement has been effected by selecting individuals from kindred breeds; from the several breeds or varieties of long-wooled sheep, with which Mr. Bakewell was surrounded; and almost every bane, and by breeding, mixing (i.e. from the same family), with this selection: functionally fritting the superior accidental varieties produced; alternating these varieties; and still continuing to select, with judgment, the superior individuals. It now remains to give a description of the superior class of individuals of this breed, especially ewes and wethers, in full condition, but not immediately fat. The rams will require to be distinguished after-wards. The head is long, fine, and horned, with ears four or six inches long, and hanging backward, and with the nose flowing forward. The neck thin, and clean toward the head; but taking a conical form; flowing low, and enlarging every way at the base; the fore and altogether short. The body broad, with the shoulders, ribs, and spine extraordinary full. The loin broad, and the back level. The haunches comparatively full toward the hips; but light downward; being altogether full in proportion to the fore parts. The legs of a moderate length; with the bone extremely fine. The bone throughout remarkably light. The carcase, when fully fat, takes a remarkable form; much wider than it is deep, and almost as broad and as long. Full on the hinder, wider on the ribs, narrowing with a regular curve towards the tail; approaching the form of the turtle nearer perhaps than any other animal. The pelts is thin, and the tail small. The wool is shorter than long wool in general, but much longer than the middle wools; the ordinary length of staple 5 to 7 inches; varying much in fineness and weight. This breed surpasses every other in beauty of form; they are full and weighty in the fore quarters; and are remarkable for smallness of bone. Mr. Marshall, who has been so much benefic to agriculture and his country by his publications, informs us, in his Rural Economy of the Midland Counties, that he has seen a rib of a sheep of this breed contrasted with one of a Norfolk sheep: the fineness was striking; the latter nearly twice the size; while the meat which covered the former filled three times the thickness: consequently the proportion of meat to bone was in the one incomparably greater than in the other.

Therefore, in this point of view, the improved breed has a decided preference: for surely while mankind continue to eat fish and throw away bones, the former must be, to the consumer at least, the more valuable.

Sheep, method of managing in Spain. The manner of managing sheep in Spain, a country famous for producing the best wool in the world, is as follows: In Spain there are two kinds of sheep: the coarse-wooled sheep, which always remain in their native country, and are housed every night in winter; and the fine-wooled sheep, which are always in the open air, and travel every summer from the cold mountains of the northern parts of Spain, to feed in winter on the southern warm plains of Andalucia, Murcia, and Etramadura. Of the latter, it appears from accurate computations, that there are about five millions; and that the wool and flesh of a flock of 10,000 sheep produce yearly about 24,000 head, or about the value of 12 English hampers, one of which belongs to the owner, three to the king, and the other eight to the allowance for the expenses of pasture, shepherds, dogs, flock, heating, &c. In the 16th century the travelling sheep were estimated at 7 millions: 10,000 sheep form a flock, which is divided into ten tribes, under the management of one herdsman, who has absolute dominion over 50 sheep and 50 dogs. M. Bourdonneau, a French gentleman, who resided many years in Spain, and directed his inquiries chiefly to the civil government, trade, and manufactures, of that country, gives the following account of the wandering sheep of Segovia: "It is says he in the neighbouring mountains that a part of the wandering sheep feed during the fine weather. They leave them in October, pass over the seas which separate the two Castile, cross New Castile, and disperse themselves in the plains of Etramadura and Andalucia. For some years past, those of the Sierra Morena, go farther to past the winter; which, in that part of Spain, is more mild; the length of their day's journey is in proportion to the pasture they meet with. They travel in flocks from 1000 to 2000 in number, under the conduct of two shepherds; one of whom is called the Mayoral, the other the Zagal. When arrived at the place of their destination, they are distributed in the pastures previously assigned to them. They return in April; and whether it be habit or natural instinct that draws them towards the climate, which at this season becomes more proper for them, the iniquity which they manifest might, in case of need, serve as an alms to their conductors." Mr. Arthur Young, in his patriarchal work which he conducted with great industry and judgment, the Annals of Agriculture, gives us a very accurate and interesting account of the Pyrenean or Catalanian sheep: "On the northern ridge, bearing to the west, are the pastures of the Spanish flocks. This ridge is not, however, the whole; there are other mountains, quite in a different situation, and the sheep travel from one to another as the pasturage is short or plentiful. I examined the soil of these mountain pastures, and found it in general rocky; what
what in the west of England would be called a 

\textit{bone draught}, with some mixture of loam, and in 

a few places a little peaty. The plants are many 

of them untouched by the sheep; many ferns, 

narcissus, violets, &c. but burnet (\textit{peterain juncu-}

\textit{fera}) and the down-leaved plantain (\textit{plantago 

hacculata}) were eaten clove. I looked for trefoils, 

but found scarcer any; it was very apparent 

that foil and peculiarities of herbage had little to 

do in rendering these heights proper for sheep. 

In the northern parts of Europe, the tops of 

mountains half the height of these (for we were 

above snow in July) are bog, all are for which I 

have fees in our lands, or at least the proportion 

of dry land is very trifling to that which is 

extremely wet: Here they are in general very dry. 

Now a great range of dry land, let the plants be 

what they may, will in every country suit sheep. 

The flock is brought every night to one spot, 

which is situated at the edge of the valley on the 

river I have mentioned, and near the post or pa-

fage of Piccad: it is a level spot sheltered from all 

winds. The foil is 3 or 4 inches deep of old dung, 

not at all inclined; from the freedom from wood 

all around, it is chosen partly for safety 

against wolves and bears. Near it is a very large 

thorn, or rather reed, fallen from the mountain. 

This the shepherds have taken for a shelter, and 

have built a hut against it; their beds are sheep 

flans, and they so far in the flock that they travel in, 

I saw no place for fire; but they have it, since 

d they dress here the flest of their sheep, and in the 

night sometimes keep off the bears, by whirling 

fire-flans; four of them belonging to the flock 

mentioned above live here. I viewed their flock 

very carefully, and by means of our guide and in-

terpreter, made some inquiries of the shepherds, 

which they answered readily, and very civilly. 

A Spaniard at Venafique, a city in the Pyrenee, 

gives 600 livres French a-year for the paturage 

of this flock of 3000 sheep. In winter he feeds 

them into the lower parts of Catalonia, a journey 

of 12 or 13 days, and when the snow is melted in 

the spring, they are conducted back again. 

They are the whole year kept in motion, and mov-

ing from spot to spot, which is owing to the 

great range they everywhere have of pasture. 

They are always in the open air, never housed or 

under cover, and never take of any food but what 

they can find on the hills. Four shepherds, and 

from four to six large Spanish dogs, have the care 

of this flock; the latter are in France called the 

Pyrenees breed; they are black and white, of 

the size of a large wolf, a large head and neck, 

armed with collars fluck with iron spikes. No 

wolf can stand against them; but bears are more 

potent adversaries. But as we have neither 

wolves nor bears in Britain, we need not quote 

Mr Young's remarks on this subject. He adds, 

refecting the sheep: " They are in general polled, 

but some have horns; which in the rams turn 

backwards behind the ears and project half a circle 

forward; the ewes horns turn also behind the 

ears, but do not project: the legs white or reddish; 

feckled faces, some white, some reddish; they 

would weigh fat: I reckon, an average, from 

4 lbs. to 28 lbs., a quarter, some tails short, some 

tail long. A few black sheep among them: some 

with a very little tuft of wool on their fore-

heads. On the whole they resemble those on the 

South Downs; their legs are as short as those of 

that breed; a point which merits observation, as 

they travel so much and so well. Their shape is 

very good; round ribs and flat straight backs; and 

would with us be reckoned handsome sheep; all 

in good order and fleshy. To be still better ac-

quainted with them, I desired one of the shepher-

ds to catch a ram for me to feel, and examine the 

wool, which I found very thick and good of the 

carding sort. I took a specimen of it, and also of 

a hoggit, or lamb of last year. In regard to the 

mellow fleece of the thick, which, in Mr 

Bikewell's opinion, is a strong indication of a 

good breed, with a disposition to fatness, he had 

it in a much superior degree to many of our En-

lish breeds, to the full as much as the South 

Downs, which are for that point the best short-

wooled sheep which I know in England. The 

fleece was on his back, and weighed, as I judged, 

about 8 lb. English; but the average, they say, 

of the fleece is from 4 to 5, as I calculated by re-

ducing the Catalonian pound of 12 oz. to ours 

of 16 oz. and is full to 3 or 4 times the English. 

This ram had the wool of the back part of 

his neck tied close, and the upper tuft tied a 

second knot by way of ornament; nor do they 

ever shear this part of the fleece for that reason; 

we saw several in the flock with this species of de-

coration. They said that this breed would sell in 

Catalonia for 20 livres. A circumstance which 

cannot be too much commended, and deserves 

universal imitation, in the extreme difficulty they 

accustom them to. When I desired the shepherd 

to catch one of his rams, I supposed he would do 

it with his crook, or possibly by take able to do 

it all; but he walked into the flock, and fingling 

out a ram and a goat, bid them follow him, which 

they did immediately; and he talked to them 

while they were obeying him, holding out his 

hand as if to give them something. By this me-

thod he brought me the ram, which I caught, 

and held without difficulty." 

(9) Sheep, proper composition for mark-

ing. To find a proper composition for marking 

sheep is a matter of great importance, as great 

quantities of wool are every year rendered useless 

by the pitch and tar with which they are usually 

marked. The requisite qualities for such a com-

position are, that it be cheap, that the colour be 

strong and fastening, so as to bear the changes of 

weather, and not to injure the wool. Dr Lewis 

recommends for this purpose melted tallow, with 

so much charcoal in fine powder mixed with it as 

is sufficient to make it of a full black colour, and 

of a thick consistency. This mixture, being ap-

plied warm with a marking iron, on pieces of flan-

nel, quickly fixed or hardened, bore moderate 

rubbing, refitted the fun and rain, and yet could 

be walked out freely with soap, or lime, or bile 

wine. In order to render it full more durable, 

and prevent its being rubbed off, with the tallow 

may be melted an eighth, sixth, or fourth, of 

its weight of tar, which will readily wash out a-

long with it from the wool. Lewis's Com. Eeli. 

Term. p. 591. 

(10) Sheep, properties of the flesh of.
The criteria of good and bad flesh, while the animal is alive, differ in different species, and are not properly settled in the same species. One superior breeder is of opinion, that if the flesh is not loose, it is of course good; holding, that the flesh of sheep is never found in a state of hardness, like that of ill-fleshed cattle; while others make a fourfold distinction of the flesh of sheep; as boneless, bony, firm, hard, and tender; considering the first and the last equally exceptional, and the second and third equally desirable; a happy mixture of the two being deemed the point of perfection. The flesh of sheep, when salted, is well known to be of various qualities. Some is composed of large coarse grains, interspersed with wide empty pores like a sponge; others, of large grains, with wide pores filled with fat; others, of fine close grains, with smaller pores filled with fat, and a fourth, of close grains, without any mixture of fatness. The flesh of sheep, when dressed, is equally well known to possess a variety of qualities; some mutton is coarse, dry, and in-liquid; a dry sponge, affording little or no gravy of any colour. Another sort is somewhat finer, imparting a light coloured gravy only. A third plump, firm, and palatable; affording a mixture of white and red gravy. A fourth likewise plump and well flavoured, but discharging red gravy, and this in various quantities. Some mutton, when dressed, appears covered with a thick, tough, parchment-like integument; others with a membrane comparatively fine and flexible. But these, and some of the other qualities of mutton, may not be wholly owing to breed, but in part to the age and the fat of the fatten at the time of slaughter. Examined in this light, whether we consider the degree of fatness, or their natural propensity to a state of fatness, even at an early age, the improved breed of Leicestershire sheep appear with many superior advantages. The degree of fatness to which the individuals of this breed are capable of being raised, will perhaps appear incredible to those who have not had an opportunity of being convinced by their own observation. 1 have been waders (says Mr. Marshall) of only two years (two to three years old) fo loaded with fat as to be fearfully able to make a run; and whose fat lay so much without the bone, it seemed ready to be shaken from the ribs on the final agitation. It is common for the sheep of this breed to have such a projection of fat upon the ribs, immediately behind the shoulder, that it may be easily gathered up in the hand, as the flank of a fat bullock. Hence it has gained, in technical language, the name of the fore flank; a point which a modern breeder never fails to touch in judging of the quality of this breed of sheep. What is, perhaps, still more extraordinary, it is not rare for the rams, at least of this breed, to be so cracked on the back, that is, to be cloven along the top of the chine, in the manner fat sheep generally are upon the rump. This mark is considered as an evidence of the best blood. Extraordinary, however, as are these appearances while the animals are living, the facts are still more striking after they are slaughtered. At Litchfield, in Feb. 1785, I saw a fore quarter of mutton, fatted by Mr. Princep of Coakin, which measured upon the ribs four inches of fat. It must be acknowledged, however, that the Leicestershire breed do not produce so much wool as most other long-wooled sheep. (ii) Sheep, bearing, and letting of rams for. As the practice of letting rams by the season is now become profitable, it may be useful to mention the method of rearing them. The principal ram breeders (says Mr. Marshall) five annually, 30, or perhaps 40 ram lambs; castration being seldom applied, in the first instance, to the produce of a valuable ram; for in the choice of the lambs they are led more by blood, or parentage, than by form; on which, at an early age, little dependence can be placed. Their treatment from the time they are weaned, in July or August, until the time of shearing, the first week in June, confers an advantage on them every indulgence of keep, in order to push them forward for the show; it being the common practice to let such as are fit to let the first season, while they are yet yearlings—provincially sharhogs. Their first pulling for winter weaving, is pretty generally, I believe, clover that has been mown early, and has got a second time into head; the heels of clover being considered as a most forcing food of sheep. After this goes off, turnips, cabbages, colewort, with hay, and (recept fays) with corn. Something considerable depends on the art of making up, not lambs only, but rams of six ages. Fat, like charity, covers a multitude of faults; and besides, is the best evidence of their fattening quality which their owners can produce, (i.e., their natural propensity to a state of fatness,) while in the fatten of the sharhogs is seen their degree of inclination to fat at an early age. Fattening quality being the one thing needful in grazing stock, and being found, in some considerable degree at least, to be hereditary, the fattest rams are of course the best; though other attachments, well or ill placed, as to form or fashionable points, will perhaps have equal or greater weight in the minds of some men, even in this enlightened age. Such shearlings as will not make up sufficiently as to form and fatness, are either kept on to another year to give them a fair chance, or are castrated, or butchered while sharhogs. From the first letting, about 40 years ago, to the year 1780, the prices kept gradually rising from 15s. to 25s. a guinea, and from one to ten. In 1780, Mr. Bakewell let several at ten guineas each; and this, what is rather inexplicable, Mr. Parkinson of Quarndon let one the same year for 25 guineas; a price which then astonished the whole country. From that time to 1786, Mr. Bakewell's stock rose rapidly from 10 to 100 guineas; and that year he let two thirds of one ram (referring one third of the usual number of ewes to himself) to two principal breeders, for 100 guineas each, the entire services of the ram being rated at 300 guineas! Mr. Bakewell making that year, by letting 30 rams only, more than £1000! Since that time the prices have been still rising: 400 guineas have been repeatedly given. Mr. Bakewell, this year (1898) makes, (say Mr. Marshall,) 1200 guineas by three rams (brothers, we believe), 2000 for four, and of his whole letting, full 3000 guineas! Besides this extraordinary sum made by Mr. Bakewell, there
here are 6 or 7 other breeders who make from 500 to 1000 guineas each. The whole amount of moneys produced that year in the Midland Counties, by letting rams of the modern breed for one season only, is estimated, by those who are adequate to the subject, at the almost incredible sum of £10,000!

(12) SHEEP, REMEDIES FOR THE DISEASES OF. The diseases to which sheep are subject are the rot, red-water, foot-rot and having, gout, distemper, fly-truck, flux, and bilious. The rot, which is a very pernicious disease, has of late engaged the attention of scientific farmers. But neither its nature nor its cause has yet been fully ascertained. Some valuable and judicious observations have, however, been made upon it, which may furnish an antidote for this malignant distemper, or be the means of leading others to some more efficacious remedy. Some have supposed the rot owing to the quick growth of grass or herbs that grow in wet places. But the constant practice of mowing farmers in the kingdom, who with the greatest care feed their meadows in the spring, when the grass grows quick, and is full of juices, militates directly against this opinion. Mr. Arthur Young attributes this disease to moisture. In confirmation of this opinion, which has been generally adopted, we are informed, in the *British Society* papers, (vol. I, art. xvi.) by a correspondent, that there was a paddock adjoining to his park which had for several years cauled the rot in most of the sheep which were put into it. In 1769 he drained it, and from that time his sheep were free from this malady. But there are facts which render it doubtful that moisture is the sole cause. We are told, the dry, tim'd land in Derbyshire will produce the rot as well as water meadows and fragrant marshes; and that in some wet grounds sheep suffer no injury for many weeks. On dissecting sheep that die of this disorder, a great number of infects, called *febik,* (see *Passiola*) are found in the liver. That these flukes are the cause of the rot, therefore, is evident; but to explain how they come into the liver is not so easy. It is probable that they are swallowed by the sheep along with their food or drink, while in the egg stage. The eggs deposited in the tender germ are conveyed with the food into the stomach and intestines of the animal, where they are received into the intestinal vesicles, care of the clyde, and pass into the blood; nor do they meet with any obstruction until they arrive at the capillary vesicles of the liver. Here, as the blood circulates through the extreme branches, answering to those of the *vena porta* in the human body, the venering vesicles are too minute to admit the impregnated ova, which, adhering to the membrane, produce those assemblages that feed upon the liver and destroy the sheep. They much resemble the flat fish called plaice, are sometimes as large as a finer two-pence, and are found both in the liver and in the pipe (answering to that of the *vena cava*) which conveys the blood from the liver to the heart. It is therefore easy to conjecture that sheep may, on wet ground especially, take quantities of these ova or eggs in with their food; and that the chymus and bile of the sheep being a proper medium for them, they of course hatch, and appearing in their fluke or left flate, feed on the liver of the animal, and occasion this disorder. It is a singular fact, "that no cow ever has the rot while she has a lamb by her side." The reason of this may be, that the impregnated ova pass into the milk, and never arrives at the liver. The rot is fatal to sheep, hares, and rabbits, and sometimes to calves; but never infects animals of a larger size. Miller says that parsley is a good remedy for the rot in sheep. Perhaps a strong decoction of this plant, or the oil extracted from its seeds, might be of service. Salt is also a useful remedy. It seems to be an acknowledged fact that fat makes no matter produce the rot. Salt indeed is pernicious to most infects. Common salt and water expel worms from the human body; and pea-weed, if laid in a garden, will drive away insects; but if the salt is separated by keeping it in the purest spring water for a few days, it abounds with animalcule of various species. Little, in his book of husbandry, informs us of a farmer who cured his whole flock of the rot by giving each sheep a handful of Spanish salt for five or six days consecutively. In wet and warm feasons the prudent farmer will remove his sheep from the lands liable to rot. Those who have it not in their power to do this, may give each sheep a pot, full of common salt, with the same quantity of barley, in a quarter of a pint of water, once or twice a week. When the rot is recently taken, the same remedy given four or five mornings incessively, will in all probability check a cure. The addition of the flour and water (in the opinion of Mr. Peice of Sandburn) will not only abate the pungency of the salt, but diffuse it to mix with the chyme in a more gentle and efficacious manner. A farmer of a considerate turnip in Holland, using the benefits of Carlsbad, related how he preferred his flocks of sheep from the mortal distemper which raged in the wet year 1769, of which so many perished. His precaution was very simple and very cheap:

"He fed them every night, when turned under a field, cover, or stables, with haffed fodder straw; and, by eating it greedily, they all escaped."  

"Red-water is a disorder most prevalent on wet grounds. I have heard (says Mr. Arthur Young) that it has sometimes been cured by tapping, as for a dropary. This operation is done on one side of the belly towards the flank, just below the wool. *The foot rot and having,* which is very common on low, furry grounds, is cured by keeping the past corn, and lying at rest in a dry pasture.* The *febik* is a cutaneous disease owing to an impurity of the blood, and is most prevalent in wet lands or in rainy seasons. It is cured by tobacco water, bennedicks, and alum, boiled together, and then rubbed over the sheep. If only partial, tar and greau may be sufficient. But the simplest and most efficacious remedy for this distemper is communicated to the Society for the Encouragement of Arts, &c., by Sir Joseph Banks.

"Take 1 lb. of quicksilver, half a pound of Venice Turpentine, half a pint of oil of turpentine, and 4 lb. of rugs land. Let them be rubbed in a mortie till the quicksilver is thoroughly incorporated with the other ingredients; for the proper mode of doing which, take the affluence of some apothe-
apotheosis. The using the ointment, begin at the
lead of the flock, and proceeding from between
the ears along the back to the end of the tail, the
wool is to be clipped in a follow till the skin can
be touched; and as the follow is made, the fin-
gers lightly dip into the ointment to be drawn
along the bottom of it, where it will leave a blue
shade on the skin and adjoining wool; from this
follow similar ones must be drawn down the
shoulders and thighs to the legs, as far as they
are woollen; and if the animal is much infected,
two more should be drawn along each side par-
allel to that on the back, and one down each side
between the fore and hind legs. Immediately af-
after being dressed, it is usual to turn the sheep
among other flocks, without any fear of the in-
festation being communicated; and there is scarcely
an instance of a sheep suffering any injury from
the application. In a few days the blisters dry
up, the itching cease, and the animal is com-
pletely cured: it is generally, however, proper
delay the operation beyond Michaelmas. The
hippopasus ovinus, called in Lincolnshire sheep
fogs, an animal well known to all shepherds,
which lives on sheep’s wool, and is hurtful to the
thriving of sheep both by the pain its bite occasion-
ates, and the blood it sucks, is destroyed by this
application, and the wool is good at all injured.
Our wool buyers purchase the fleeces on which
the juice of the ointment is visible, rather in pre-
fERENCE to others, from an opinion that the use of
it having preferred the animal from being vexed
either with the fleas or the fog, the wool is less in-
patible to the districts of joints or knots; a fault
observed to proceed from the sudden stop in the
thriving of the animal, either from want of food
or from disease. This mode of curing is now
so generally received, that the fleas, which used
to be the terror of the farmers, and which fre-
cently deterred the more careful of them from
taking the advantage of fattening their sheep in the
fertile and extensive commons with which that district abounds, is no longer regard-
ed with any apprehension: the molt of them have
their flack aborted in autumn, when they return
from the common, whether they show any symp-
toms of cachexia; and having done so, recover
them from infection. There are people who
employ themselves in the business, and contract to
attend our large sheep at 8s. a few, for that price the success of the operation; that is a
agreeing, in case many of the sheep break out after
the operation, to repeat the operation gratis even some months
afterwards.” The dote is a distemper caused by
a bludgeon of water gathering in the head. No
cure for this has yet been discovered. The richets
is a hereditary distemper for which no antide
is known. The first symptom is a kind of light
tedness, which makes the affected sheep ap-
ppear whiter than usual when the shepherd or any
person approaches him. He becomes up sudden-
ly from his lair, and runs to a distance, as though
he were pursued by dogs. In the second stage
the principal symptom is the sheep’s rubbing him-
self against trees, &c., with such fury as to pull off
his wool and tear away his flesh. “The defiled
animal has now a violent itching in his skin, the
effect of an highly inflamed blood; but it does
not appear that there is ever any cutaneous epi-
phenum, or fatal critical discharge. In short, from
all circumstances, the fever appears now to be at
its height.” The list stage of this distemper “seems
only to be the progression of distillation, after an un-
favourable crisis. The poor animal, as conformed
by Nature, appears stupid, walks irregularly
(whence probably the name.files), generally lies,
and eats little: these symptoms increase in degree
till death, which follows a general consumption,
as appears upon distillation of the carcass; the
juices and even solids having lost a general dis-
tillation.” To discover the seat and nature of this
disease, the sheep that died of it ought to be dissected.
This is said to have been done by one gentle-
man, Mr. Beal; and he found in the brain or mem-
brane adjoining a maggot about a quarter of an
inch long, and of a brownish colour. A few
experiments might easily determine this fact. The
flay and head is cured by clipping the wool off at
as infected, and rubbing the dry parts with lime
or wood-ashes; curriers oil will heal the wounds,
and prevent their being struck any more; or they
may be cured with care, without clipp
ing, with
oil of terpentine, which will kill all the vermin
where it goes; but the former is the surest way.
The face is another distemper to which sheep are
subject. The blitf remedy is to kid to house the
sheep immediately when this distemper appears,
to keep them very warm, and feed them on dry hay,
giving them frequent glitters of warm milk and
water. The caule of that distemper is either their
feeding on wet lands, or on grass that is become
moist by the lands having been fed many years
without being ploughed. When the farmer per-
cieves his sheep-walks to become moist, or to pro-
duce bad grass, he should either plough or mar
ture with hot lime, making kilns either very near or in
the sheep walks, because the hotter the lime is put
on, the sweeter the grass comes up, and that early
in the year. Bucing, or as it is called, some
places the blight, attacks sheep when driven into
fresher grass or young clover. They overeat them-
selves, foam at the mouth, swell exceedingly,
swell very quick and short, then jump up and
infanlly fall down dead. In this case, the only
cure of saving their life is by rubbing them in
the raw with an instrument made for the purpose.
The instrument is a hollow tube, with a pointed
weapon paffing through it. A hole is made with
the pointed weapon; which is immediately with-
drawn, and the hole is kept open by inferring the
tube till the wind is discharged. Sheep are in-
fectes with worms in their nose called affinis ovis,
and produced from the egg of a large two-winged
fly. (See Oestrus, No. 4.) The frontal lin-
ea above the nose in sheep and other animals are
the places where these worms live and attain their
full growth. These finnes are always full of a
soft white matter, which furnishes these worms
with a proper nourishment, and are sufficiently
large for their habitat; and when they have here
achieved their defined growth, in which they are
fit to undergo the changes for the fly state, they
leave their old habitat, and, falling to the earth,
bury themselves there; and when these are hatch-
ed into flies, the female, when she has been im-
regnated by the male, knows that the hole of a
SHEEP OR other animal is the only place for her to deposit her eggs, in order to their coming to maturity. Mr Vallinister, to whom the world owes so many discoveries in the insect class, is the first who has given any true account of the origin of these worms, though the creatures themselves were very early discovered. The fly produces from this worm all the time of its life a very lazy disposition, and does no like any use either of its legs or wings. Its head and feelers together are about as long as its body, which is composed of five rings, streaked on the back; a pale yellow and brown are there disposed in irregular spots; the belly is of the same colours, but they are there more regularly disposed, for the brown here makes three lines, one in the middle, and one on each side, and all the intermediate spaces are yellow. The wings are nearly of the same length with the body, and are a little inclined in their position, so as to lie upon the body: they do not, however, cover it; but a naked space is left between them. The anterior or petly wings which are found under each of the wings are of a whitish colour, and perfectly cover the halteres, so that they are not to be seen without lifting up the fly. It will live two months after it is first produced, but will take no nourishment of any kind; and possibly it may be of the same nature with butterflies, which never take any food during the whole time of their living in this state. Reamur, Hist. Inf. vol. iv. p. 554, &c.

14. SHEEP, RULI, FOR PURCHASING. The following instructions for purchasing sheep, may be useful to our country readers. The farmer should always buy his sheep from a fertile land than his own, and they should be big-boned, and have a long, greatly wool curving close and well. The sheep always breed the finest wool, and are also the most approved of by the butcher for fat in the market. For the choice of sheep to breed, the ram must be young, and his skin of the same colour with his wool, for the lambs will be of the same colour with his skin. He should have a large long body; a broad forehead, round, and well-fitting jaws; large eyes, and straight and short nostrils. The polled sheep, that is, those which have no horns, are found to be the best breeders. The ewe should have a brown back, a large bending neck; small, but short, clean, and straight legs; and a thick, deep wool covering her all over. To know whether they be found or not, the farmer should examine the wool that none of it be wasting, and see that the gums be red, the teeth white and even, and the brisket-skin red, the wool firm, the breath sweet, and the feet not hot. Two years old is the best time for beginning to breed; and their first lambs should not be kept too long, to weaken them by sucking, but be sold as soon as convenient. They will breed advantageously till they are 3 years old. Farmers have a method of knowing a sheep’s age, as a horse’s is known by the mouth. When a sheep is one year, as they express it, it has two broad teeth before; when it is two years, it will have 4, when three 6, and when four 8. After this their mouths begin to break. The difference of land makes a very great difference in the value of sheep. The fat pastures breed the fattest tall sheep, and the barren hills and downs breed square short ones; woods and mountains breed tall and slender sheep; but the best of all are those bred upon new-ploughed land and dry ground. On the contrary, all wet and must lands are bad for sheep, especially such as are subject to be overflowed, and to have floods and dirt left on them. The fat marbles are, however, an exception to this general rule, for their fatness makes a great demand for their moisture; fat, by reason of its drying quality, being of great advantage to sheep.

15. CHOICE OF EWE, &c. Rams previous to the feason are reduced from the cumbrous fat state in which they are shewn. The usual time of sending them out is the middle of September. They are conveyed in carriages of two wheels with springs, or hung in fings, 30 or 50 miles a day, sometimes to the distance of 200 or 300 miles. They are not turned loose among the ewes, but kept apart in a small enclosure, where a couple of ewes only are admitted at once. When the feason is over, every care is taken to make the rams look as fat and handsome as possible. In the choice of ewes the breeder is led by the same criteria as in the choice of rams. Breeds having a large proportion of the genuine blood, be the species or variety what it may. Hence no prudent man ventures to give the higher prices for the Dinishy rams, unless his ewes are deeply instilled with the Dinishy blood. Next to breed is Beih, fat, form, and wool. After the lambs are weaned, the ewes are kept in common feeding place, without any alteration of posture, previous to their taking the ram. In winter they are kept on grass, hay, turnips, and cabbages. As the heads of the modern breed are much finer than most others, the ewes lamb with less difficulty. The female lambs, being weaned, are put to good keep, but have not such high indulgence as the males; the prevailing practice being to keep them from the ram the first autumn. At weaning time, or previously to the admission of the ram, the ewes are cauled, to make room for the sholes or shearings. The superior blood and fashion entitle them to a place in the breeding flock. In the work of culling, the ram-breeder and the mere grazer go by somewhat different guides. The grazer’s guide is principally age. Oldam giving his ewes the ram after they are four shears. The ram-breeder, on the contrary, goes chiefly by merit; an ewe that has brought him a good ram or two is continued in the flock; the best of all are ram. There are infinities of ewes having been prolific to the 20th or 21st year; but in general the ewes of this breed go off at 6 or 7 shears. In the practice of some of the principal ram-breeders, the culling ewes are never suffered to go out of their hands until after they are slaughtered, the breeders not only fattening them, but having them butchered, on their premises. There are others, however, who sell them; and sometimes at extraordinary prices. Three, four, and even 50 at twice the price per head, which was the going rate, are not uncommon. There are in the flocks of several breeders ewes that would fetch at auction
guineas each. Mr. Bakewell is in possession of ewes which, if they were put up to be sold to the best bidder, would, it is estimated, fetch no less than 50 each, and perhaps, through the present furt of contention, much higher prices. As to the time of putting the rams to the ewes, the farmer must consider at what time of the spring his grafts will be fit to maintain them and their lambs, and whether he has turships to do it till the grafts come; for very often both the ewes and lambs are destroyed by the want of food; or if this does not happen, if the lambs are only hinted in their growth by it, it is an accident that they never can recover. The ewe goes 50 weeks with lamb, and according to this it is easy to calculate the proper time. Where there are not inclosures to keep them in, they should be in January, that the lambs may be strong by May-day, and be able to follow the dam over the fallows and water-furrows; but the lambs that come so early must have a great deal of care taken of them, and so indeed should all other lambs at their first failing, eke while they are weak the crows and magpies will pick their eyes out.