

As little exposure to air and light as possible, after spawning the beds, should be allowed while doing any sort of work about them, as much injury and check are caused by the admission of light and air during the growth of spawn, and, of course, in the crops to be raised from it.

To judge of the successful performance of the operation, look at the mould, and if you see little white threads running here and there and interlacing, it is all right. I do not think it is absolutely necessary, though it is doubtless convenient, to buy mushroom spawn. You can get it for yourselves, if you will take the trouble to hunt for it, at all seasons of the year, but more plentifully in the latter part of summer and in the fall. It may be found in old mushroom-beds, in old horse-dung hot-beds, and, generally, in all compost heaps where horse-dung has formed the chief component part. It is sometimes produced naturally all over the surface of old cucumber and melon beds, both in the dung and in the earth, and when the earth of the bed is of good loam, the spawn found in it is often of superior quality; so much so, that I have known, such old beds, where the frames and glasses remained, and the surface of the beds, under the glasses, was kept dark by straw, produce a full crop of mushrooms in the spring.

The spawn can be found in meadows and pastures in the fall, but only where horses graze, and away from the shade of trees. What mystical association exists between horse-dung and mushrooms? I'm sure I don't know! The mushrooms which grow under the shade of trees are not to be depended on.

A. R. JENNER FUST.

DE OMNIBUS REBUS.

Spaying.—In England we spay, that is extract the ovaries of, all heifers that are not intended for milch-cows, and we find that they fatten all the better for it, as their feeding undergoes no interruption from their periodical fits of amorous phrenzy. In this country, we cannot, as yet, do this, as we have no superfluity of heifer-stock, and, good or bad, every female calf not killed for veal is reared and brought to the pail. But our sow pigs really ought to be spayed: many an uncatable piece of pork owes its villanous flavour and odour to the pig having been slaughtered when in heat.

Some people fancy that the operation is a dangerous one: it is nothing of the sort. I have seen some hundred of sow-pigs spayed, and I never saw one of them injured by the treatment. They are always much quieter and fatten much more rapidly and at an earlier age than open-sows.

Chop—Preparing food for horses is not so new an idea as some people fancy. While we Englishmen were giving our farm-cattle rough hay and whole oats, the Dutch farmers of Pennsylvania were far ahead of us in stable management. As long ago as 1780, the horses of that state used to perform journeys of two and three hundred miles over the hilly roads of that country with prodigious loads of wheat and flour from the interior, returning with dry goods &c from the sea-ports of Charleston, Wheeling, &c. Notwithstanding this enormous labour, Vancouver declares that the horses in question "are seldom seen in a less high condition than the brewers' and other large cart-horses in London."

The manner in which these American horses were fed, so as to support these labours, was, in the stables and on the road, by giving them hay and straw chopped into half-inch lengths and mixed with about half a peck of oat-rye and corn-meal to about three pecks of the chaff. A feeding trough of sufficient size for the whole team to feed out of at the same time was carried in each waggon while on the road. The chaff was put into the trough, and after being well mixed with the

given quantity of meal, was moistened, and again well stirred up, until every shred and particle of the chaff was found to be covered or, so to speak, frosted over by the meal. The avidity with which the horses ate their provender when thus prepared may be easily imagined. This is Mr. Stewart's plan for feeding cattle all over.

That there are great waste and loss of nourishment in the too general practice of giving unbroken grain to horses is extremely evident from the state it is found in after it has passed through their bodies: very little nutriment, if any, has been extracted from it. In its unbroken condition, when not completely masticated by the teeth of the animal, as is frequently the case, the digestive process of the stomach would seem to have but little effect upon it, as it passes out in nearly its natural state, while, when broken or crushed by rollers it is readily acted upon by the gastric juices, and the whole of its nutrient matters is taken up in its long course through the intestines, in consequence of, in its finely comminuted state, its fuller and more extensive application to their surfaces.

All cattle, horses more especially, are better fed and supported when the grain is reduced in its preparation before it is given, than in the usual mode of giving it whole. The supposed defect from want of chewing and mixing with the saliva of the mouth is all nonsense, as no one would think, I should hope, of giving grain to horses without mixing it with a sufficient quantity of hay- and straw-chaff: the chaff and grain will force the laziest beggar of a horse to masticate his food properly.

Shropshires.—At all events, every one interested in this valuable breed of sheep acknowledges that they are derived, by selection or crossing with other breeds, from an original stock which inhabited the Morfe district of Shropshire. I find upon referring to a work on sheep, written about a century ago, that the "Morfe" sheep was horned, black and speckled in colour, bore a fleece of fine short wool, that weighed 1 lb. 12 oz.—washed on the sheep's back, I presume—and that the wethers at the age of 3½ years, at which time they were usually slaughtered, weighed 12 lbs. a quarter. At the above date the Southdown wethers were slaughtered at 2 years old. they weighed 18 lbs. a quarter, and their fleece 2½ lbs.

"The *Shropshire*, or *Morf* breed," continues the writer, "is a sort which has small horns, with speckled dark or black faces and legs, they have the full character of real fine-woolled sheep, have been for centuries bred in Shropshire, Staffordshire, Worcestershire, and the vicinity. Their fleece is nearly all *fine*, and, it is said, superior to the *Ryeland* wool, since the crossing which has been practised in that stock."

How the present Shropshires have been brought to their present state of perfection I do not presume to say; but a glance at a large flock of them at Lord Chesham's gave me the impression that long-wools of some sort or another had something to do with it. Besides every body knows that they were not admitted as a distinct breed to the R. A. S. of England's exhibition till the Glo'ster show of 1883. I saw them there in their glory, and having in the previous spring had an opportunity of inspecting several flocks of the breed in their native county, where I was staying in Sir Baldwin Leighton's parish, I honestly confess that I was forcibly struck with the difference between the highly polished exhibition pens, and their rougher brothers of the Shropshire tenant-farmers' flocks.

It seems to me very bad taste of the Shropshire breeders in the States to be always "pitching in" to the Hampshire-downs on account of their large heads. I do not admire that point in the latter, but at all events it is a sign of *virility*, and as long as the Hampshires are the hardest and the