

as well as between the joints—proof : soak one in water for 24 hours ; it will weigh more than when dry.

Air follows water as it sinks through to the drains : in spring, the air is warmer than the sub-soil : evaporation produces cold : drainage prevents evaporation ; therefore, drainage increases temperature, and supplies fresh air to the subsoil.

Drainage by unskilled workmen, with improper tools, will cost from 50% to 100% more than it ought to cost.

“Draining is the most important, the most judicious, the most remunerative, of all land improvements.” Lord Stair.

If the main has to receive water from both sides, the small drains should never enter it opposite each other—they should meet the main at an acute angle ; thus avoiding, blocking back the water and washing down the sediment, which would prefer subsiding and choking the pipes.

Drain one acre perfectly rather than too partially.

Plough as deeply as possible two years after drainage.

Clays once dried and pulverised will be loath to cohere again—a brick won't, if broken.

USE OF MOLASSES FOR CATTLE.

At a late session of the French National Agricultural Society, Mr. Jules Bénard exhibited a molasses-cake, which he had used for his cattle, with excellent effect. They all liked it and did well upon it.

The cake was of the usual shape, brown in colour, with the characteristic smell of *treacle*—as we call it in England ;—something like a piece of coarse ginger-bread, and not unpleasant to the taste.

Seeking to know its origin, we found that it was the commencement of a new manufacture, whose processes are thoroughly organized, and which seems to be undubitably destined to be successful. This industry will probably resolve the problem of the utilization of the molasses of the beet-sugar factories, the solution of which problem has been entrusted to the committee of arts and manufactures.

The cake is made by a Parisian, Mr. A. Vaury, the well-known maker of the bread for the army. Its manufacture consists in the boiling of the molasses and working it up briskly with mixture of corn flour and bran, when it is pressed into the

ordinary form of a cake, and packed in bags for sale. The proportions used are : one-third molasses, one-third flour, one-third bran.

Up to the present time, Mr. Vaury has used only the molasses of the refinery, the product of which is always of the same quality, and which, according to analysis, consists of :

Nitrogenous matter.....	12.18
Mineral matter (ash).....	3.36
Sugar (as cane-juice).....	29.88
Starch, saccharisable cellulose	43.61
Fatty matters.....	0.85
Uncalculated matters, such as raw cellulose, etc.....	10.12
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Total.....	100.00
Percentage of nitrogen.....	1.95
“ of phosphoric acid	1.16

Several others, besides Mr. Bénard, have used this kind of cake, especially the Paris draymen, and the suburban cow-keepers. The latter report that it not only adds to the yield of milk but increases the proportion of butter-fat.

Molasses-cake is not, of course, expected to form the basis of the food of cattle, but to act as an assistant and, probably, as a condiment (to flavour the coarser food, excite appetite, and assist digestion. Ed.) The quantity given is :

Daily.	
Oxen and cows.....	6 to 10 lbs.
Horses.....	2 to 4 lbs.
Sheep.....	2 lbs.
Lambs.....	1 lb.

HENRI SAGNIER.

(From the French.)

Uneven Gait of Horse.

Question.—I have a fine-bred three-year-old carriage horse that wades a little with one fore foot. Her leg is straight and all right, but when bringing it forward throws it out. Can she be shod to help her ; if so, will you kindly let me know ?

Answer.—There are a great many shoeing smiths who profess to be able to change the gait of a horse by a variety of weighted shoes. I myself have not much confidence in the success, and have never been able to detect the slightest difference in the going when using the weights or heavy shoes. However, you might try having a shoe made heavy on the outside quarter and light on the inner with some chance of success.

(Farmer's Advocate.)