have brought out this new Flax Brake in the very nick of time, when the demand for Flax as a substitute for Cotton, and the scarcity of labourers on account of the war render a machine of this description a prime desideratum in the economy of the FARM.

## REARING CALVES ON MILK AND LINSEED MEAL.

When a calf is first dropped it is covered with a thick slime which Dame Nature teaches the cow by instinct to cleanse by licking it off; and if she shows any disinclination, the country people, to induce her to do so, sprinkle it with a little salt and fine oatmeal. This is necessary for the calf's comfort, cleanliness, and health, and is thought by many usefully medicinal to the cow, and on every account should be encouraged. If the calf is permitted to suck the cow it will be more difficult to make it take its meals from the pail, and also fret and annoy the cow, which will not give its milk freely, but retain it for its offspring. But though it will be necessary to prevent the calf sucking its dam for these reasons, it should be fed on the cow's first milk or beestings, which nature designs as its most nutritious food; it is also medicinal, cleansing the bowels of the pent-up meconium or fecal matter secreted there during its confinement in the womb. It should, therefore, get a sufficient portion of this naturally medicinal aliment four times a day, say a pint and a half at a time, so as not to keep it fasting too long, and, at the same time, not to overload the The calf should get a portion of its. stc hach. own dam's milk as long as it retains its peculiar medicinal quality, which may be known by its coagulating upon being heated or boiled; but older calves should not get any of it, as to them it would be injurious.

When the calf is a week old a little skim mi'k may be gradually mixed with the new milk, and after a fortnight, a little fine oatmeal, Indian, bean, pea, or linseed meal mucilage may be added gradually, which will enable the industrious and economical housewife to save her milk for the production of butter or cheese, and rear her calves also.

No doubt but the best and most proper food for the calf is its own dam's milk; for it is a true food, in which the components of nutrition are so nicely balanced by the all-wise and beneficent Creator as to set at nought all human compositions; but it is of so much value for human consumption that it becomes necessary to economize it, and make imitations of it, though at a very humble distance; and thus it is that science comes to our aid. Professor Johnson says, in his "Lectures on Agricultural Chemistry," "that while the calf is young, during the first two or three weeks, its bones and muscles chiefly grow. It requires the materials of these, therefore, more than fat, and hence half the milk it gets at first may be skimmed, and a little bean

meal may be mixed with it, to add more of the *casein* or curd, out of which the muscles are formed. The costive effects of the bean meal are to be guarded against by occasional medicine if required. In the mext stage more fat is necessary, and in the third week, at latest, full milk should be given, and more milk than the mother supplies, if the calf requires it; stead of the cream a less costly kind of fat may be used. Oil-cake, finely crushed, or linsed meal, or even inseed oil, may supply at a cheap rate the fat which, in the form of cream, cells for much money; and instead of additional milk, bean meal in large quantity may be tried, and if the size of the calf and the firmness of the veal may be anticipated."

This scientific note from Professor Johnson has engaged the attention of many stock masters in Ireland, and, amongst the rest, Mr. C. Beamish, of Cork, who adopted it and brough it to a regular system on an extensive scale His formula for compounding the mucilages as follows :- Thirty quarts of boiling water an poured on three quarts of linseed meal and for quarts of bean meal. It is then covered w close; and in 24 hours added to 31 quarts a boiling water, then on the fire, pouring it is slowly, and stirring it constantly to prever lumps, with a perforated wooden paddle, se \* to produce perfect incorporation. After boiling 30 minutes, the prepared mucilage or gruel' put by for use, and should be given blood a lukewarm to the calves, mixing it in smal quantities at first with mik, say one-fourt mucilage with three-fourths milk, progressing, increasing it so that by the and of a formide increasing it, so that by the end of a fortnight it will be in equal parts; by the end of the this week, one and a half mucilage to one part mill by the end of the fourth week the mucilage ma be given in double the quantity of milk, 2h skim milk may be substituted for new milk, a by the end of the sixth week the mucilage wi be gradually increased in the proportion of the and a half to one of milk, and from that out to the tenth week, the milk may be gradually a duced, so that by that time they may be fe wholly on mucillage till they are fifteen or si teen weeks old, when they may be weaned.

During all this time, if too early in the seas. to put out the calves, they should be comfor. ably housed, well ventilated, and kept perfect sweet and clean, with a little sweet hay tiedi bundles, and suspended so that they may plu with it, and learn to nibble and eat it, and little pounded chalk mixed with salt, given. troughs to lick at pleasure, which preven acidity in the stomach, and undue formation. curd, small lumps of linseed cake should also. given in other troughs, which they will so learn to suck, if a little pains are taken to put bit in their mouths after they have taken the meals of milk and mucilage. When housed will be advisable to have a separate pen for a calf, of sufficient size to walk about in; to ]