

in quadrupeds. Most frequently good milkers have sharp points, and appear more or less loose and flabby. In regard to bony structure, they may be as well formed as cows remarkable for their readiness to fatten, or ability to work; but, being seldom in plump condition, they seem lean and raw-boned.

CONSTITUTION.—It is desirable that the special marks which indicate a great activity of the milky glands, and, consequently, a good milker, should be united with those which imply a good constitution. These are large lungs, a broad and prominent chest, a somewhat low respiration, an abdomen of moderate dimensions, a good appetite, and a great inclination to drink—an inclination stimulated by the abundant secretion of milk. Such cows eat much, digest easily, and breathe well; they make good blood. This fluid gives activity to the nervous system, makes all the organs lively, and furnishes the glands with the materials of a copious secretion. Cows possessing these properties last long, give much milk, and, when they become dry, soon fatten.

GENERAL APPEARANCE.—In all breeds, the preference should be given to cows which in form are the farthest removed from that of bulls; to cows with small bones, fine and slender limbs, and a tail which is fine at its base; a small but longish head, narrowing towards the horns; the horns themselves of a bright color, tapering finely, and glistening; a supple and soft unctuous skin, covered, even to the forehead, with erect, glossy, soft hair, and provided, near the natural passages, with a short, fine, and silky down; a small neck, and shoulders (*encolure*) apparently long, because slender, especially near the head; small eyelids, well divided, but not much wrinkled; prominent eyes, and gentle feminine look.

TEMPERAMENT.—With these marks of a feminine description, cows should unite a sanguine lymphatic temperament, and especially a mild disposition. Good milkers allow themselves to be easily milked; often, while ruminating, they look with a pleased eye, easily recognized, at the person who milks them; they like to be caressed, and caress in return.—*London Veterinarian*.

A TWIG WHICH EVERY FARMER SHOULD KNOW.—If you wish to drive a cut nail into seasoned timber, and not to have it break or bend, just have a small quantity of oil near by, and dip the nail before driving, and it will never fail to go. In mending carts and ploughs, this is of great advantage, for they are generally made mostly of oak wood.

In straightening old nails before using, let it be done on wood with easy blows; if done on iron, they will be sure to break.

TEST FOR SOUND EGGS.—The larger end of a newly-laid egg feels cold when placed against the tongue. A newly-laid egg, also, appears semi-transparent when placed between the eye and a strong light, and has a small and perceptible division of the skin from the shell, which division is filled with air or gas. If an egg shakes, it is sure that it is stale.

Communication.

ON THE MODERN SYSTEM OF DRAINAGE, AND ITS APPLICATION TO CANADA.

No. IV.

To "first catch your hare" is as essential a preliminary in drainage operations as in those of the cuisine; for unless materials of a suitable description can be obtained within an available distance and at reasonable prices, it is in vain to expect any considerable progress to be made in works which must necessarily be confined within certain limits as to cost. Having then already shown that the cylindrical Tile is the most perfect for all ordinary purposes, we shall proceed in the first place to give a few plain directions for its manufacture, and conclude our present series with some remarks on the depth and distance of drains, and the effects to be produced.

Now, as affording to the agriculturists the best guarantee for their early introduction throughout the Province, and at the same time to the manufacturer a profitable addition to his business, we would suggest to the established Brickmakers of the country the advantages of manufacturing Drainage and Sewerage Pipes, as well as bricks. We could enumerate hundreds of instances where this has been done in England with great advantage to the district, and a corresponding remuneration to the maker. And as evidence of the certainty of success, and of the demand for the articles growing and increasing with their production, we have ourselves established Tileries in localities where previously the use of a draining tile was hardly known, which in a few years afterwards were second to none in the kingdom for extent of business; and so it will no doubt be in this country when once the benefits of realization are felt. Already in one instance at least has an example been set at Toronto by one of the oldest Brickmakers there, which is deserving of notice, and where the orders for Pipes will form a very considerable item in the products and profits of the establishment during the present year. And further, we are desirous in our professional capacity as a Drainage Engineer of contracting for a supply of 300,000 and upwards of different sized Pipes to be delivered for the drainage of property in the Cobourg District.

In an established brickyard the only things at first required for the manufacture of pipes are a wooden shed of moderate extent (which can be enlarged as the business increases); a claymill, and a machine for moulding the pipes. Until the demand justifies the outlay, it is not necessary to incur the expense of erecting covered kilns, because by taking care to set the pipes away from the fire poles and in the middle they can be readily burnt in the ordinary brick clamps. As the demand increases, however, it will be found desirable to build one or more arched kilns for the exclusive burning of pipes and the better description of bricks, flooring Tiles &c., moulded from the machine. In building the shed there is no need to put up any great length of shelving, as in the case of hand-made tiles; all that is necessary being two or three lines of shelves