

Fattening by Machinery.

A writer thus describes the artificial fattening machine used by some poultry-breeders in France: "Imagine the top of a round tea-table divided off into sections, with a partition between each section, and a board in front with a half-moon-shaped aperture in it. In each of these sections an unhappy duck or chicken is confined by a chain to each leg, and under each is fitted a tray, which receives all the dirt, and is emptied daily. Through the centre of this structure goes a round post, and there is a series of such tea-table tops to the roof of the building, each with its divisions and its imprisoned fowls. At stated intervals a man comes round with a somewhat complicated machine fitted with a kind of thin gruel, and fitted with a pipe at the end of a long Indian rubber tube. He introduces this pipe down the throat of a duck, presses down a pedal with his foot, and a certain quantity of food is forced through the tube into the creature's craw, a disc above showing exactly what amount he is to use and how much food passes. This process is gone through with each fowl till all are fed, and it is repeated four times a day for ducks and three for chickens. Two weeks will suffice to fatten ducks, and three weeks are necessary for a chicken. Apart from the necessary confinement of the birds, the process does not seem to be at all a cruel one, as the amount of food forced down their throats is not excessive. The ducks which I saw fed did not seem to suffer in the least, and, in fact, when they saw the man approach most of them became clamorous for immediate attention, and plucked at his clothes as he passed, with eager beaks."

LIME TO THE ACRE.—Lime, in itself, is not generally considered a fertilizer or food for plants, while potash is. Carbonate, or quicklime, as it is usually called, when applied to sandy soils, does little more than hasten the decomposition of whatever vegetable matter it contains, rendering every particle useful to the plants growing therein, and, as one of our noted agricultural writers long ago remarked, "the principal functions of lime as a manure appear to regulate the condition of the organic matter in the soil, and to facilitate its healthy decay." Good judgment is required in all cases where lime is applied, else it may do more harm than good; but upon a light, sandy soil, containing a moderate amount of vegetable matter, five bushels of freshly-slaked stone lime would be sufficient, or ten to fifteen of air-slaked or gas lime, evenly distributed over the surface. It is better to apply lime in small quantities and frequently, than in large doses and at long intervals.—*R. World.*

Tanning Skins.

Many persons, says an exchange, are often coming in contact with furs and skins which would become valuable to them if they possessed a knowledge of tanning smaller pelts, while from a lack of this knowledge, there being no ready demand, they are compelled to see them go to loss. Inquiries are not made under the apprehension that the process is too complex and tedious to render it practicable; such is not the case, almost all the small animal skins will tan very readily and with little expense.

To Tan with the Fur on.

Nail the fresh skins tightly and smoothly on a board, keeping the skinny side out. If the skin has become dry before an opportunity is had for stretching it, it may be made pliable by slightly wetting with warm water. After the skin has been securely tacked up, proceed with a blunt knife to scrape away all loose pieces of flesh and fat; then rub in as much chalk as possible, and be not sparing of labour. When the chalk begins to powder and fall off, take the skin down and fill it with finely ground alum, wrap it closely together and keep it in a dry place for two or three days when it may be unfolded, the alum shaken out, and the work of tanning is over.

Another Process

is to carefully avoid getting any dirt or blood on the fur before commencing; stretch tightly, and scrape as before; mix two quarts of milk, a teacup of salt, and half an ounce of vitriol. Warm this mixture to something more than blood-heat, but not scalding, and soak the skin in it for about forty minutes, stirring and squeezing it in the warm liquid, that it may absorb as much of it as possible. Press out the surplus liquid, and let dry for a short time, then commence rubbing the flesh side with all your strength across the smooth edge of a board; continue this until the pelt is entirely dry.

Another Method

is to cover the flesh side of the skin, when first taken from the animal, with powdered alum and salt, in equal quantities, this may remain from one to four days according to the thickness of the hide, and then be washed off with warm soap-suds, partially dried and rumped as the above. In rubbing dry, powdered chalk may be used. Afterwards sprinkle with alum and fold up for a few days, when it will be thoroughly cured and very soft.

Without Hair.

For tanning without the hair, the latter may be removed by lime or lye upon the flesh side, and thoroughly washed

in soap-suds, and afterward soaked in paste made of bran; then rub dry, and cure by hanging in a thick smoke for several days, taking care not to get it too warm. This will give a fine, soft and durable leather.

The main item with all the above receipts, after the chemicals have performed the tanning part, is to render them soft and pliable by long continued stretching over the edge of a smooth board.

A Mosquito Guard.

The *eucalyptus globulus* having drained marshes, destroyed malaria, driven away fevers, overcome the most obstinate epidemics, and grown into good ship-timber in the most incredibly short space of time, and in all sorts of climates from the arctic to the tropics, is not yet inclined to stop in its wonderful career. Having already distanced all competitors in the tree line, its motto is still "excelsior," and there is no telling where it is to stop in its beneficent career in behalf of suffering humanity.

A foreign paper tells us that a "distinguished French philosopher" being worried considerably because his mother-in-law could not sleep for mosquitoes, put some leaves of *eucalyptus globulus* in her bedroom, and lo! she has slept soundly ever since! The mosquitoes had hitherto defeated all attempts to circumvent them, mosquito nets, tents and bars of every description, we suppose included. When we remember the numerous almanac jokes at the expense of the unfortunate mother-in-law, we may be lost in wonder at the unusual care and thoughtfulness of this model son; and we regret that we have not his name to hand down to posterity, so that he may share in the future honours that are to be given, no doubt, to *eucalyptus globulus*. All we can do is to imagine what a picture of terror, rage and disappointment will be depicted on the countenance of the New-Jersey mosquito, when she learns of this new terror to her race, and calmly sits with folded hands, waiting for the next valuable discovery in connection with the wonderful *eucalyptus*, during the intervals when not actually engaged in making plantations of the tree itself.—*G. Telegraph.*

Increasing the Chimney Draught.

It is difficult, says the *Manufacturer*, to give a definite answer to such a question without seeing the locality. We can only give advice based on general principles. To secure a good draught, the chimney must be high, hence the very high chimneys constructed in some localities; the width of the chimney should be proportional to the amount of grate surface; if the latter is increased, as is often the case, a chimney which before was efficient, may become deficient. As, however, it is a serious matter to rebuild a chimney, not only on account of the expense, but also on account of the ruinous interruption to the business, other means may be resorted to, or at least attempted. Among these is the blowing upward of steam in the chimney from a high pressure engine; this is the way in which a sufficient draught is secured in locomotive chimneys. If there is no high-pressure engine, air may be blown upward through a properly-shaped nozzle, but not from a fan-blower—this is too weak and continuous; it is much better to have the intermittent strong blasts of a small piston air-pump, operated by the engine. It may also be well to examine the horizontal flues, and see if there are any obstructions or angles impeding the draught, and remove these as far as possible. Also make a thorough examination for leaks in the flues through which the chimney may draw cold air. This has occasionally been a strong impediment to a good draught, causing much loss before it was discovered. Another point is to see if the horizontal flues are perfectly dry; sometimes water gets in when they are low, and this is a most fatal circumstance—the hot air, in passing over the water, heats and evaporates it, and thereby loses so much of its own heat that it has lost most of its strong ascending power. These are only a few points which at present occur to us, and others may be suggested, but they may be sufficient to put you on the track, and we repeat what we have said above, only a careful study of the locality in all its details and circumstances can give you a complete knowledge of the cause.

Stock Notes.

SAVAGE BULLS.—For the removal of savage bulls, have a girth around behind the shoulders; but in place of the rope being fastened to the ring, fasten it securely to one of the forelegs, just above the foot, then, when the bull attempts to run at the men that are leading him, the man behind pulls the rope, and down comes the bull on his knees. I have seen one of the savagest bulls tamed by bringing him a few times to his knees; and another advantage is, the pressure is not all on the ring.—*London Agricultural Gazette.*

MESSRS. A. & A. STEWART, of Lobo, and Col. J. B. Taylor, of London, have lately purchased "6 and 7" Duchess of the Valley, from the herd of the late Mr. Carter, of Connecticut.

MR. ALFRED SIMMONS has recently received, direct from Canada, two young thoroughbred Cotswold ewes. The fleece on them measures fourteen inches in length.—*P. Home Journal.*

SALE OF A PRINCESS BULL IN AMERICA.—Third Baron of Lyonsdale, a splendid two-year-old Princess bull, has been bought by Col. King, of Minnesota, from Mr. D. B. Haight, at 800 guineas.

GOOD PRICE FOR A COW.—For a handsome four-year-old roan cow of the Moss Rose tribe, Mr. Geo. Fox, after keen competition, paid 295 guineas, at a sale in Lincolnshire, England, last week.

A TOTAL of 3,050 horses were exported from England during the past year, of which 258 were sent to Germany, 652 to Holland, 515 to Belgium, 1,238 to France, and 357 to other countries. The value of horses exported from the United Kingdom in the last eight months was £173,982, against £136,819 in the preceding year. To France, this year horses to the value of £63,401, and in 1874 £43,606, were sent.

SALE OF A BULL.—Mr. Thomas McCrae, Janefield, has sold a yearling Galloway bull to Dr. John R. Wood, near Toy Depot, Albemarle County, Virginia, U. S. The animal is a very fine one, and has taken several prizes at the leading Canadian exhibitions. Mr. McCrae has of late sold quite a quantity of stock for distant parts, which speaks for itself as regards the quality of the stock at the Janefield farm.

PROLIFIC AND CONTINUOUS BREEDERS.—We find going the rounds of our English exchanges a statement that a certain breeder of Short-horns owns three cows whose aggregate ages foot up forty-two years, and are still producing regularly. We know of a herd in Bourdon—the Houstondale—owned by Hall & Taylor, which contains three cows whose aggregate ages are fifty-three years, and two of them have just produced and the third is now due to calve.—*Live Stock Journal.*

IMPORTS OF LIVE STOCK.—The Board of Trade returns for the four months ending the 30th April last, show that there have been imported into Great Britain in that period 40,408 oxen and bulls as compared with 37,731 in the same period last year, 11,522 cows, as against 8,419; 7,561 calves, as against 6,611; 298,716 sheep and lambs, as against 249,667; 7,927 swine as compared with 13,277. Bacon and beef also show a slight increase.

CATTLE IN AUSTRALIA.—Some interesting particulars relative to the influence of Short-horn cattle are supplied by the Australian agricultural returns for 1874, which we find in a colonial journal. The return of cattle showed that there were 2,710,374 head of stock in the country. On 522 holdings the cattle are returned as Short-horn; on 44 as Hereford; on 96 as Short-horn and Hereford; on 38 as Devon; on 402 as cross and mixed breeds.

SCRUBS AND BLOODED STOCK.—G. T. Saum, Kellogg, Iowa, writing to the *National Live-Stock Journal*, says that he sold the Union Stock Yards, in February last, sixty-four head of cattle. All of them were two-year-olds, and had been stall-fed. A portion were natives, and the remainder half-blood Short-horns. The natives averaged 1,236 lbs. (they were good ones for two-year-olds, evidently), and sold for \$4.65 per 100 lbs., making an average of \$57.47 per head. The half-blood Short-horn grades weighed 1,666 lbs., and brought \$6.50 per 100 lbs., an average of \$108.29 per head. This is a difference in favour of the half-bloods of \$50.82 per head.

SHORT-HORN PURCHASES.—Among the Canadian purchases at the sale of the Dodge, off Waukegan, Short-horn herd in Chicago, last week, are the following: Lady May Third, red and white heifer, 1 year old, by Duke of Airdrie, Colonel O'Mally, Wardsville, Ontario, \$300; Maud Airdrie, red and white heifer, 1 year old, by Nineteenth Duke of Airdrie, Col. O'Mally, \$290; Oxford Lass Seventh, roan heifer, 2 years old, by Duke of Erie, Col. O'Mally, \$400; Frantic Twenty-fifth, roan cow, 3 years old, by Fourth Duke of Oxford, Col. John Hope, Markham, Can., \$200; Oxford Frantic, roan heifer, 15 months old, by First Earl of Oxford, Col. Hope, \$130; Oxford Frantic Third, red and white heifer, 7 months old, by Earl of Oxford, Col. Hope, \$100; Oxford Gwynne, roan cow, 5 years old, by Marmion, Simeon Beatty, Toronto, Ont., \$600.

THE SHORT-HORNS.—Mr. Wm. Curtis, a noted Short-horn breeder of Michigan, says he prefers the Short-horns because there is more profit in them; there is more of them. The calves and stock bring more money; they take on flesh faster. The cows give richer milk and the butter is richer. I know this, for I have tried Short-horns for years. They have no superior for beef. They combine more good qualities than any other breed of cattle. They cannot be improved by crossing with any other breed; but the Short-horn improves everything it touches. It is the best known breed for improving native stock, and for this purpose alone they are invaluable. They are kind and gentle, easily handled, good breeders and good mothers, healthy feeders, and I prefer them to any other breed. But I make no war on any other breed. They all have their good points, but the Short-horns, in my opinion, have the most good points.