

orizing property of bone black lies entirely in the nitrogenized portions of the bones, and that bone charcoal made without these nitrogenized portions will not decolor. (In this, however, most authorities differ from him.) In his new black he replaced the phosphate of the bones with clay, which he calcined with twenty-five per cent. of horse manure, or even with night-soil—although this, of course, would never be used in practice—and thus obtained a most energetic and concentrated "animal black," and this at so cheap a rate that it is cheaper and easier to make new black than to restore the used black by reburning. The spent black forms most valuable manure. By the use of this new black the filtrations are reduced one-half, and the expense of this part of the process is greatly lessened, which is a most important point.

If he is correct in his statements, the best and cheapest animal matter to mix with the clay would be the "graves," or refuse of the soap and candle manufacturer, or scraps and trimmings of hides from the tanner. Whatever animal substance is used is, of course, thoroughly purified and deodorized by the burning at a red heat with clay.

Toronto, Canada,  
1st Nov., 1873.

### Short-horn Sales.

The "Green Grove" sale, at Edmonton, of the Short-horns, Cotswolds and Berkshires, the property of Mr. J. R. Craig, took place on the 11th. ult. as announced. A large crowd of people, including a number of prominent American breeders, were present, and the sale, under the management of Mr. Page, passed off very satisfactorily. The following is the summary:—

#### Cows and Heifers.

Dairymaid, imported, red and white, Col. R. H.	\$7.3
Austin Sycamore, Ill., .....	650
Dairymaid II, roan, 15 months, Gen. S. Meredith	303
& Son, Cambridge, Ind. ....	500
Finetta, roan, C. C. Parks, Waukegan Ill., ..	300
Fidelity, roan, 15 months, R. H. Austin	300
Flora, roan, and calf, 2 months, B. Sumner Wood-	375
stock, Conn. ....	500
Prince Imperial's Genl, red, 16 mos. R. Austin	675
Maid of Thornhill, imported, S. Meredith & Son..	200
Moby II, R. H. Austin, .....	275
Lady Selway, roan, 5 years, C. C. Parks, .....	150
Gertrude, red, 3 years, B. Sumner, .....	225
Sultana, roan, 3 months, B. Sumner, .....	350
Suberta, red, 1 year, S. Meredith, & Son, .....	300
Lady Bourbon II, red, 3 years, R. H. Austin, ..	300
Charles Annie II, roan 1 year, C. C. Parks, ..	100
Evangeline, roan, 1 year, B. Sumner, .....	275
Imperial rose, roan, 6 months, B. Sumner, ..	350

#### Bulls.

Prince Imperial, roan, 6 years, R. H. Austin, ..	350
Melliance, red, 2 years, J. Snell, .....	300
Emperor, roan, 16 months, R. H. Austin, ..	300
Proud Prince, red, 1 year, R. H. Austin, ..	100
Baron of Green Grove, red and white, 3 months,	100
R. H. Austin, .....	35
Heir of Edmonton, roan, 3 months, R. H. Austin,	35

#### Summary.

16 females, average, \$30.30 Total, ....	\$6,215
6 bulls, do. 135.00 do. ....	1,110
22 head, average, \$312.74—Total, .....	\$7,325

The sheep brought excellent figures, the 51 sold averaging nearly \$33. The entire proceeds amounted to \$10,600.

### Mr. Beattie's Sale.

Mr. Beattie's sale took place on Thursday, the 12th ult., at Markham village, and was attended by a large number of stockmen and Short-horn breeders, including many of those present at Mr. Craig's sale, on the preceding day. Mr. Page acted as auctioneer. *Maid of Honor*, a handsome and well-bred show-heifer, was first offered, and in a very few minutes was knocked down to Mr. George Murray, Racine, Wis., at \$2,600. *Lady Gunter*, a three-year-old heifer, red, with mixed pedigree, ran up to \$2,000, at which figure she became the property of Mr. Murray. *Lady Knowlmer*, a four-months roan calf, was knocked down to Mr. Elias Stillson, Racine, Wis., at \$725. *Roberta*, an imported roan cow, of mixed pedigree, fell to Gen. S. Meredith, Cambridge, Ind., at \$1,275. *Malmsey*, roan, calved April 1st, 1870, moderately well bred, reached the handsome figure of \$3,100, at which she was knocked down to Mr. C. C. Parks, Waukegan, Ill. *Royal Booth*, roan, four months old, of short pedigree, was also purchased by the same

gentleman, at \$700. The remaining animals in this class were disposed of as follows: *Rose of Racine*, a well-bred Bates cow, three last crosses by *Duchess* bulls, knocked down to Gen. Meredith, at \$3,420. *Anna Leslie*, roan, of good Kentucky pedigree, to B. Sumner, Conn., \$375. *5th Duchess of Springfield*, pure Bates, but unfortunately white, to Gen. Meredith, \$550. *Her Highness*, pure Booth, roan, aged five years, to B. Sumner, \$400. *Jessie*, roan, aged, to B. Sumner, \$275.

Only four bulls were offered. The first, *Royal Duke*, red, aged two years, went to C. C. Parks, at \$550. *Royal George*, aged 16 months, and *Tweeddale*, roan, aged 17 months, were also knocked down to the same gentleman, the former at \$100, and the latter at \$225. The fourth *Burnside*, went to Mr. D. Brown, Pickering, at \$205.

#### Summary

12 cows and heifers, average, \$1,01.74—Total, ..	\$12,450
4 bulls, do. 210.00 .....	1,080
16 .....	\$13,530—Total, \$13,530

The Clydesdale horses were next sold. *Emperor*, an imported two year old stallion, by imported Rob Roy, was offered at an upset price of \$1,400, but was withdrawn, and subsequently sold for \$1,500 by private sale. *Emily May*, an imported Clyde filly, three years old, was knocked down to Geo. Murray, for \$1,200. The celebrated Clydesdale stallion, *Donald Dinnie*, was knocked down to Geo. Murray, Racine, Wis., for \$5,000. The sheep, which were of the Cotswold breed and from choice folds, had been well selected, and sold well, 60 ewes and 5 rams realizing the handsome sum of \$3,618, one pair selling for \$320.

## The Apiary.

### A few Seasonable Hints.

It is advisable to disturb bees as little as possible during their long imprisonment in winter quarters. Under the most favorable circumstances, it is a long and dreary confinement for them, and everything should be done to mitigate its severity as much as is practicable. If kept perfectly quiet, in a dark place, of the proper temperature, they get into a sort of semi-torpid condition. When in this state, they consume very little food, and consequently escape that distention which results from long retention of feces. Bees void their excrement during the active season when on the wing, and keep their hives scrupulously neat and clean. In the winter, when imprisoned in the hive, there is a partial excretion of dry particles, but the liquid faeces are retained. Bees will endure this condition of things a long period in a state of quietude, but if made restless by disturbance or by being kept too warm, they eat more honey, and become so uncomfortably distended, that they must have relief or perish in the attempt. Hence the persistent efforts they make to get out of the smallest apertures in the hive, and hence too, the loss of many, consequent upon their becoming so chilled that they are unable to return to the hive.

But while bees are to be disturbed as little as possible during their long winter confinement, they must not be wholly neglected. A little attention will sometimes preserve a stock from being lost. For example, if wintered out of doors, a course pursued still by many good bee-keepers, there is danger of the entrances being stopped up by dead bees, waste matter, snow, sleet and ice. This can only be guarded against by inspection at those changes of the weather which are liable to create difficulty. When wintered in-doors, bees should be examined now and then. Usually it will be sufficient to listen for signs of restlessness and uneasiness. If there is any roaring, it is a fair inference that they are too warm. It is of course possible to go to the other extreme, and keep them so cool that the stillness of death is brought

about. Both extremes must be guarded against. Toward the close of winter, a careful examination of stocks should be instituted, in order to ascertain if they are in a healthy condition. Usually this may be accomplished without disturbing and exciting them very much. Hives on out-door stands may be gently loosened from their bottom-boards and tipped up a little, so that the surface of the bottom-boards can be seen. The state of the colony may be judged pretty nearly by the appearance of the waste that has accumulated. It should consist of brown particles of dry dirt, dead bees, and possibly dead larvae. If the bees have been in a state of quietude for several weeks and all is right and well with them, there will be several ridges or streaks of brown dirt, a few dead bees, and if breeding has commenced here and there a dead larva, which by some means or other, has dropped out of its cell. In such a case, it is safe to decide without further inspection, that the colony is in a strong and healthy condition, and will probably remain so for some little time to come, provided there is a sufficient quantity of food, which can generally be determined by the weight of the hive. Many hives have tight bottom boards, and their welfare can only be ascertained by removing the honey-board which covers the frames on top. But a pretty good guess can be made as to their condition without seeing the ridges of which mention has been made. Generally, the bees cluster near the tops of the frames, near enough at any rate to enable the bee-keeper to get a good look at the outsiders. If they are dry and clean, and seem to be congregated pretty numerously between seven or eight frames, it may be safely inferred that they are doing well. Whether the examination be made from below or from above, if it is found that the bees have discharged liquid faeces, and fouled their hive, it is evidence that they are more or less diseased, have caught cold, and are infected with dysentery. On the other hand, if the hive is reeking with moisture, and there is drainage going on, it is proof that they are too warm, and are sweating. In the first instance, the hive should be cleansed of dead bees and filth, and something done to increase the supply of warmth. It is a good plan, sometimes, to bring a chilled hive into a warm room for a short time, to restore warmth and render the bees comfortable again. It is however, very difficult to save a hive that has once been chilled. It is like restoring a frozen apple or potato. In this, as in many other cases, prevention is better than cure. When the presence of superabundant moisture shows that a hive is too warm, a little more ventilation must be given. Caution must be used however, lest this be done too suddenly, or too much.

In most seasons, a warm day early in March, will afford the bees opportunity for a discharging flight. The bee-keeper should not fail to take advantage of this, as it greatly helps the prosperity of a hive. Bees that are wintered in-doors should be brought out into the open air, on such a day as that now referred to, and if the weather becomes cold again, returned to their winter quarters until spring comes in earnest. When bees are allowed to take a flight, it will be observed that the snow, (if it be still on the ground,) will be specked with yellow spots for a considerable distance around the hives. These are made by the faeces that have been discharged. A few bees will be lost by alighting on the snow, but generally these are aged and infirm ones, of which it is as well to be rid, since they will not live to gather any honey, and are only a tax on the resources of the hive. If a few, young, healthy bees are lost, the gain in the general condition of the hive, and the promotion of early breeding, will more than make up for them. Some bee-keepers give their bees a flight in mid-winter, in an artificially heated room. We do not see why this plan should not work, though, never having tried it, we cannot speak of it from personal experience.

It is very desirable to stimulate early breeding so as to have strong stocks by the time fruit blossoms come. As already hinted, a cleansing flight has this effect; so also has feeding. This is the case even if there is a sufficient store of honey in the hive. Any appearance of food-gathering is an indication to the queen that the time has come for her to lay. Hence a little syrup daily given, will tend to increase the strength of a stock, and there is no one thing on which successful bee-keeping so hinges, as maintaining colonies in a strong condition, from the beginning to the end of the working season.

A PERSON who has familiarized himself to bees, can by means of the passion of fear impressed upon them, and by that dexterity in the management of them, which can only be acquired by practice, manage bees as he pleases.—*Widman*.