

ures with fowls than probably any other one thing. In addition, if diphtheria can be traced to this cause, one would suppose that every possible precaution would be taken to guard against it, though of course it will not.

The stables set apart for horses and cattle are cleaned every day, and sometimes several times a day. It is not always done in the best manner, or in a manner to make the best use of the excrements, but it is done generally as a matter of course, and without complaint about "the trouble." But when it comes to fowls it is very different. In the first place no pains are often taken to so arrange the roosts that the droppings can be readily scraped or shoveled away, or even covered or mixed with some disinfecting substance which makes it safe to let them accumulate for a few weeks. They are simply let alone and allowed to accumulate, not only for weeks, but for months and even years. Fermentation sets in after awhile, or very soon in warm weather, chemical changes occur affecting the commercial value, disgusting odors arise which first affect the fowls, and then are wafted over the neighborhood, and insects of many kinds are bred in the pile, some of them hen-lice, and these at once attack the fowls. In many cases "hen-cholera" is developed, and then the owner wonders and mourns at the extraordinary run of "bad luck" he is having, though I cannot see that there is much luck about it. It is about as natural a result as it would be to make the cellar of his house a dumping place for vegetable and animal filth year after year. In fact, the latter would be less pestilential, as the tight floor of most dwellings, with a second, and sometimes a third floor above, is a partial protection; but the filth under a hen roost goes straight to the fowls above, unless a friendly breeze sends it in another direction.

Roup is a form of diphtheria, as any one will see who notes the swelled throat and eyes of the suffering fowl, and its painful attempts to breathe. The exuding fluid or moisture from the mouth and eyes is undoubtedly poisonous as is probably the breath also. The rule is to exclude all sick fowls from the flock at once, which is right, but not enough. It is far better to exclude all causes of disease, and thus prevent it. A sick fowl is a poor thing to spend time on in doctoring. Its value is slight at most, while to attend properly to it requires about as much time as a horse worth more than a hundred fowls. In general, fowls of only ordinary worth had better be killed as soon as they are seriously sick, as a man whose time is worth a dollar a day to him cannot afford to spend many hours on a sick fowl. But in works of cleanliness he works for his whole flock, and also for his family. He promotes health and neatness, and this ought to be as great a pleasure to him as it usually is to see his house kept in neat order by a tidy wife. The slipshod indifference to the appearance and condition of outbuildings and premises, so often manifested, is disgusting and disgraceful, and the quarters set apart for fowls are usually the worst of all. That there is a close relation between such premises and the health of rural families admits of no doubt whatever. Farmers have advantages for health which no possible care in the great cities can equal, and when they heedlessly render them nugatory by carelessness, they have none to blame but themselves.

S. I.

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RAISING DUCKS WITH PROFIT.

EDS. COUNTRY GENTLEMAN—Ducks can be kept and raised quite as profitably as chickens, with only water sufficient for drinking purposes. Indeed they become a greater source of profit if limited in their runs. They consume a large quantity of food if allowed access to it, but after a certain

amount the surplus food is rather a disadvantage, and should be kept from them, for it is consumed at a waste. Ducks should be kept separate from the other fowls, as they are apt to create disturbances. Ducks are great foragers, and will live largely on insects, like other fowls. If kept from the neighborhood of running streams. When once given access to a running stream, they become difficult of control. If kept like other fowls, they give no more trouble.

There are many varieties of ducks, but the common gray duck is about as profitable as any. They are good layers, and the young mature early, and are fit for market by midsummer, when they bring good prices. A duck will lay from 14 to 16 eggs, when she will sit. The period of incubation varies from 26 to 28 days, according to the weather and the steadiness of the sitter. Ducklings are not hardy, indeed, I think they are more delicate than our common chickens, until fully feathered. The growth of young ducks is very rapid where well fed, in which case they are quiet, and are little trouble if given a place of resort where they can do no mischief. They are mischievous if allowed access to the garden, as they will destroy the young vegetables. If given a place by themselves, with a shallow trough of water to bathe in, renewed daily, they will give no trouble when well fed. The mother will lay two, and where well kept, three clutches of eggs, which may be put under hens, if it be desired to keep the ducks in laying, which they will do if well fed, and also mother the ducks of the first hatching. Ducklings that are raised by the natural mother are the more profitable, as she leads them in ways agreeable to the instincts of their nature.

Ducks' eggs always command high prices in the market, and are valuable for home use. Ducks do not pine in confinement, but take to their quarters naturally, providing they are kept furnished with food and water regularly. The feathers of ducks are worth more than those of the turkey or fowl. When given full run of all the premises they, as well as other fowls, become a nuisance. There is no need of it. Ducklings should be fed much the same as young chickens, and like them are fond of green food. O. B. *Duchess County, N. Y.*

CHAMPLAIN VALLEY BEE-KEEPERS' ASSOCIATION.

The Champlain Valley Bee-keepers' Association met at the Addison house parlors, in Middlebury, January 10th. The meeting was called to order at eleven o'clock by the president, J. E. Crone, and, on motion, V. V. Blackmer was made secretary, *pro tem*. The chair then appointed a committee on nominations, and another committee was appointed to introduce topics for discussion. The committee on nominations reported as follows: For president, H. L. Leonard; vice-president, E. P. Wolcott; secretary and treasurer, J. E. Crane. The persons placed in nomination were unanimously elected by the association, and President Leonard was conducted to the chair. The president then made a short speech, expressing his thanks for the honor shown him. He also alluded to the prominent part the association had taken in the upbuilding of the honey producing interest in Addison county and vicinity. The meeting now being open for business, Mr. Isham asked:

"Is it desirable to exchange queens with other bee-keepers for the benefit of their apiaries?" President Leonard thought it was not desirable. Secretary Crane thought it might often be of great benefit, as he had more respect for black bees after having used them in some of his apiaries the past season. The next question propounded was: "Will some strains of bees of the same race prove more productive than other strains, or will some colonies of bees, with the