

able to give a little lettuce or such like food. It cannot be expected that a hen with failing vital powers will discharge her duty as well as one properly cared for. Moreover, if the sitter leaves the nest in a starved condition, when the chicks are hatched, the temptation to eat their food is very great. Grit and the best of water and as cold as possible in summer, should be provided.

#### THE EGGS FOR HATCHING.

These should be as recent as possible. They should be kept in a cool but not a cold place; and before being placed under the hen she should have had a preliminary trial on dummy eggs, but under exactly the same circumstances as those of the regular sitting period. The duration of the trial should not usually be less than two days after the hen has shown *decided* proclivities for sitting. The selected eggs should of course be placed under the hen at night. After early May, the sitter should not be hurried back to the eggs too soon; we have ourselves made that mistake more than once. There is, however, more need of close attention for the first 4 or 5 days and we would prefer to risk but little, allowing only 5 to 10 minutes to elapse if so much, before the siter returns to the nest. No dust bath, etc., allowed for 4 to 5 days therefore. After that it is very desirable since it affords exercise, recreation and a great deal that is of importance to a bird under such dreadfully monotonous conditions.

We do not believe in handling eggs, sprinkling them, etc. It will, however, especially in the later period of incubation be desirable, and in case of very hot and dry weather, necessary to moisten the eggs. The best method we know of is that recommended by Mr. Donovan, of moistening (not wetting thoroughly) the breast and belly of the hen with a sponge dipped in water rather above blood heat.

It is well to remove shells from time to time, as the young hatch out, but without removing the hen. Except in rare cases owing to unusual thickness of the shells or the membranes lining them it is not necessary to help out chicks. Those that require such assistance are as a rule unfit to survive. Nature is applying her relentless law "the survival of the fittest" at the outset.

Finally I have come to the conclusion that it is wiser to place fewer eggs under a hen than she can actually cover, and in the end nothing is lost even as regards number of chicks hatched. About 9 to 11 eggs are enough.

#### THE BREEDING AND REARING OF GEESE.

##### FOWLS.

**T**HOUGH there are several distinct varieties of geese in this country, their general treatment is in most respects so similar that it is unnecessary in the present article to enter fully into the merits of any particular kind, but rather describe as clearly as possible the best way to breed any kind successfully.

It is well known that, unlike most varieties of domestic poultry, fresh grass forms a considerable portion of the food upon which geese subsist, and therefore they can only be kept profitably in such situations where they can have free range on the pasture-land surrounding their abode, or are enabled to wander in search of green herbage on the commons. Occupiers of farmsteads, of course, have these advantages at their disposal, and a pen of geese are therefore frequently included with the other farm-yard stock.

With a good grass-run, and likewise provided with a small pond of pure, clear water, a gander and a couple or three geese should be mated together some time previously in preparation

for the breeding season, which usually commences early in the year, chiefly depending on the mildness of the season. Care must also be taken in the selection of the stock, and the geese, moreover, should be of a different strain than the male bird. Previous to the breeding period, in addition to their ordinary food, it is essential to supply the geese with material to assist them to shell their eggs, and lime scraps, together with crushed oyster or cockle-shells, will prove an excellent grit for the purpose required.

When geese commence laying, the eggs should be collected daily, and particularly during the early months of the year; should the weather be cold and unseasonable, they must be taken from the nest soon after being laid, or they are liable to be chilled by the frosty air, thereby sometimes destroying their fertility. Hardshelled and properly-shaped eggs should only be retained for hatching purposes, and the best plan is to carefully select such and place them in boxes containing bran or soft hay, at the same time keeping them in a room of moderate temperature, occasionally turning them over, thus altering their position during the short period previous to incubation. Moreover, should the eggs be soiled, they must be carefully washed and dried, leaving the shell pure white; for by so doing they not only have a cleaner appearance, but can be more easily tested as regards their fertility, which a practised breeder can generally discern a few days after incubation has commenced.

For hatching purposes, large Cochin and Brahma hens are found excellent substitutes for setting goose eggs, the number placed under each hen generally varying from four to seven; but the size, not only of the fowls, but also of the eggs, must be taken into consideration, the cold weather in the