

the whole. This is evident to all who have had anything to do with fancy poultry where judged by comparison only, for almost every breeder of Light Braamas—for instance—has a hobby. One sees nothing but size, and if a cock weighs sixteen pounds he is the first-prize bird. Another wants him heavily feathered on the legs, and if he looks as though he stood on two feather dusters he is all right, no matter what shape or size. Another has comb for a hobby and so on. Now it is evident that a man who has a hobby of this kind could not judge by comparison. Hence it is necessary to place a value on each of these parts to keep him from over rating birds of this kind. But this is pretty well settled now as a necessity.

This I think would be a good idea : For instance, if I bred B. B. R. Games, and I think there should be a change in the description as it now stands in the standard, I write to one or two or more prominent breeders and state my ideas, asking theirs. When I hear from them I compare notes and write out my proposed amendment in full, and if I like, send it to these same breeders to examine. If it suits them I ask them to sign it also and return it to me that I may forward it to Mr. Josselyn, as requested by the A. P. A. In this way the matter for the proposed revision can be worked up and put in an intelligible shape for the action of the committees that may be called upon to revise the standard. Let us all get our say in now, whether members of the A. P. A. or not, and then when the standard is a *fixed fact* for five or ten years, we can go to work and get up our breeding pens so as to produce standard birds.

JAMES M. LAMBING.

Parker's Landing, May 16th, 1881.

Artificial Incubation.

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No. X.

(Continued.)

The constructions of the ovens is not by much so important as the choice of the place where they ought to be fixed.

The chief thing to be had in view is to hinder the air which is over the ovens from being at any time impregnated with the vapours which are continually exhaled by the bed of dung. For this reason the oven could never be better placed than under an elevated shed, supported only by four pillars, and open all sides, provided the heat did not on that account become more difficult to be preserved, or the oven partake too much of the variations of the external air. This last consideration requires that they should be put in a place

inclosed in part, and not be closed so much as to retain the air in it. If you are reduced to the necessity of using a small place, no higher than a common room or a stable, you must open, at least in two of the opposite walls a couple of large windows, even three or four if the position of the place will allow of it. The ovens will be more advantageously situated in proportion as the vapours of the hot bed continue in a less quantity over them. The facility one has of finding casks in every country is a very good reason for choosing them for chicken ovens, and those having a loose head is an oven made ready to our hands, and only wants to be put in a proper place, although the oven may be thus entirely of wood, it will be better to line the cask with a layer of plaster of paris, or better still, with the common sheet tin used by tin-smiths, or thin plate iron ; or it may be made entirely of thin iron or tin, and the thinner the lining or the whole substance of the oven the more easily it will be warmed ; and in either of these methods it will retain the heat very well. The cask whether lined within or not is to be set on end, the bottom downwards, upon a bed of hot dung, a foot and a half or two feet thick. If its whole outward surface is afterwards surrounded with dung, making a bed extending to a distance of two feet around its circumference, it will become an oven having its mouth vertical. This will be the sooner warmed in proportion as the dung that surrounds it is itself hotter. The air within its cavity would be too easily cooled if the wide orifice of the oven was quite open ; it is therefore necessary to prevent the communication of the inner air with the air without, which is affected by means of the cover. This cover, as I before observed, is to have holes stopped with corks to serve as registers, and the cover should be let into the cask so as to retain the heat in the cask as much as possible. The proper kind of dung to be used for the chicken ovens is that known by gardeners as straw dung, which is composed of droppings from the stables, with a good proportion of straw used for littering and bedding the horse, and which remains after the long straw has been shaken and separated from the shortest stalks. If the cask was surrounded with nothing but the pure dung it would be the sooner warmed indeed, but its heat would not be so lasting as that procured from the dung that has a right quantity of broken straw in it, and which would supply a much longer fermentation than matters that have already fermented in the body of the animal.

We shall mention in the following memoir the critical time at which it is proper to renew the heat of the chicken oven, and the manner of doing it. But while one is surrounding the oven with dung we must understand that it is not to be rendered very compact by beating or treading it down hard ;