

ledge of, and adaptedness to, the business on the part of the keeper. He should be located within easy distance of some city or good market, near a railroad station if transportation is necessary. He should select such breed or breeds as his taste and other circumstances will warrant. He should provide good, comfortable houses, with runs adapted to the object in keeping, bearing in mind that eggs for producing chickens are very much better where the hens have a free run and plenty of coops (say one to ten) for breeding hens. For market and numbers of eggs, limited confinement without coops is preferable. The two foregoing essentials provided, he should feed his fowls regularly three times a day, vary the food as much as possible at the three feeds. Soft food, hot or cold, as the weather may be, should be given in the morning. This may be meal, bran, vegetables, meal, &c., mixed, wet with water or milk, giving once or twice a week with this food a dose of red pepper. The other two rations may be of whole grains of different kinds, charcoal (and no better charcoal for the purpose can be had than corn on the cob charred by placing in the stove oven till properly cooked) plenty of green grass, clover, rowen hay, cabbages, and turnips; he should also provide plenty of pulverized oyster shells, bones, old slaked lime and gravel, with dusting places for their use.

Lastly, he should keep his fowl house scrupulously clean; whitewash and fumigate as often as is necessary to the purpose. He should never crowd too many fowls into one compartment; not over 30 or 40, better less. He should colonize as much as possible, and avoid in-and-in breeding as far as may be. I believe that the foregoing embrace the essential and fundamental rules for profitable poultry raising, and that he who follows this course will meet with success. Neglect them, and fowl raising will be found "up hill work," and a non-paying business.

W. H. WHITE.

Worcester County, Mass.

HOPS—(Concluded.)

When *picking time* arrives, if you have only one kind of hops in your yard, you will find it difficult to get them all picked in time, unless you begin the very instant they are ready; not before, for the reasons I mentioned last month. In England, each yard is, generally, planted with three sorts, which are so chosen as to ripen successively—here, if you do not arrange beforehand to have plenty of pickers, you will get into trouble, as you will probably restrict yourselves to one kind. The proprietor should have nothing to do with the manual labour of picking; it will take all his time to superintend the pickers, to see that they pick clean, do not put any leaves in the bin, and do not waste their time in chattering to each other; for although we pay so much a bushel for picking in England, here, it will probably have to be done by the day. A penny a bushel used to be the price for a good crop! In this country, as the hands are not accustomed to the work, you may think yourselves fortunate if you get it done for 6 cents. And that reminds me that the poles, here, are much too heavy and clumsy; not so great a trouble, one would think, to choose them with a little care at first. It is not in poling the hills that the annoyance is felt, but in the hurried work of harvesting. *Bins* should be large enough to take a cloth for a woman and two or three children to pick into; the poles, with the bines on, are laid on the bin, and as soon as the hops are off, the bines should be stripped from the poles, as they hold wet and rot the poles. You will soon see how important these apparently trivial matters are in connection with such expensive articles as poles are, even in this well-wooded country. The poles are drawn out of the ground by means of a stout bifurcated tool called, if I remember rightly, a *hop-dog*,

the bines being first cut near the ground. A two pronged fork with very short, thick spines is about the thing, with a boss behind to assist the leverage.

Drying.—How the hops dried on such kilns as I have seen in the Eastern Townships escape injury I cannot tell. Only six, or at most seven feet, from the fire to the canvas, is often seen, and hardly any draught: the hops are roasted, not dried, in such kilns. Take a good malt-kiln for your model: 11 feet between the fire and the *kiln-head*, i. e. the cloth on which the hops lie; and the height of the *cowl*, 18 to 20 feet above the cloth! Four pipes, say, 3 inches in diameter, should pass through the cloth into the hot air chamber below, and stand about 3 feet above the hops when the kiln is loaded. This will create additional draught towards the cowl—not a thing to be sneezed at in a foggy morning in September. As to the shape of the kiln, that is utterly immaterial; the distance from fire to kilnhead, the great distance from kilnhead to cowl, the uprightness of the cowl, the draught-pipes (introduced by me into Canada 22 years ago), causing a free circulation of the air from below passing through the hops, constitute the greatest improvement imaginable. In a word, the main object in hop-drying, as in drying malt, is to cause the greatest quantity of heated air to pass through the hops, and drive the moisture out at the cowl, without any excess of heat.

If I remember, Dr Ure, in his volume on Arts, Manufactures, &c., gives a plan of a *Hop-Oast* or kiln—I cannot find a copy of this valuable book of a later date than 1843, or I would have given an engraving as an illustration. However, the Township kilns may be copied as far as they go, only altering the dimensions as to height from fire to kiln and from kiln to cowl. I really earnestly beg your attention to this point as many a good sample of hops is spoiled by its neglect.

Heat of Kiln.—Kilns of the kind I have described will take a bushel of hops to the square foot. The heat should never exceed 120° F., and to regulate it, take a common thermometer and pass it through the hops until the bottom reaches the cloth, with a small bar attached by a piece of string to the semi-circular piece of iron wire which is found on all metal-cased thermometers, to mark its position.

A large stove, burning either wood or coal, will answer every purpose, but I strongly recommend a sheet-iron pent-house over the stove to spread to heat, and to prevent the fire being too fierce at that part of the kilnhead immediately above it. A kiln on the plan I have mentioned should dry off two loadings of hops in the 24 hours; which, supposing the kiln to be 20 feet by 15 feet would give, at 1 bushel per square foot each kiln-load, 600 bushels a day. Don't *over dry*; if a few hops remain *clung*, or sticky, the heat of the others will dry them in the room where they are put when they come off the kiln. If you are doubtful on this matter, throw the whole lot into a round conical heap: the undried hops will roll down the outside of the heap and can easily be removed. Never pack your hops until they are cool: *hops packed hot never drain well from the boiler*, i. e. they retain a much larger amount of the worts; a serious matter to the brewer, as both time and value are lost.

Hops are sufficiently dried when the strig, or stalk, will snap. To dry hops well: a moderate heat at just, say, 90° F., gradually rising in temperature, till at the end, when the kiln is finished, the thermometer on the cloth indicates 120° F.

Hop-packing.—Here, hops are always *trod*den into the bag; a hole is generally made at one end of the cooling-room, with a frame and curb raised about a foot above the level of the floor; a round hoop being first fastened in at the top of the bag, it is let down into the hole, the hoop resting on