

In accordance with a promise made in the last issue of THE HORTICULTURIST I propose to deal in this article with different methods of hatching. It is generally conceded by poultry experts that if less than 100 chickens are to be hatched they can be handled nicely by using hens; if more than 100 are desired the incubator is much more convenient and more easily managed, and in less time.

Leasily managed, and in less time.
I can not do better than quote what Mr. W. R. Graham, the efficient Manager of the Poultry Dept. at the Guelph Agri. College, has recently written on "running an incubator." Mr. Graham has had wider experience in the care of incubators than any one else in Canada. His instructions are as follows: "When starting a machine set it level. This is necessary with hot-air machines especially. Then examine the lamp and see that the fine wire gauze in the burner is clean. This is necessary to get a good, clear flame. An old tooth brush is suitable for cleaning the gauze. The gauze should be cleaned once a week at least, more often if the room is dusty. If this is not done the lamp is more inclined to smoke. A new wick is placed in the burner, the lamp flue or smoke flue is examined and cleaned if an old machine. The lamp is now filled with good oil and lighted. Use oil that weighs about 7.80 pounds to the gallon, as the better the oil the less trouble with smoke, burners, wicks, etc. Next examine carefully the interior of the machine and brush it out thoroughly.

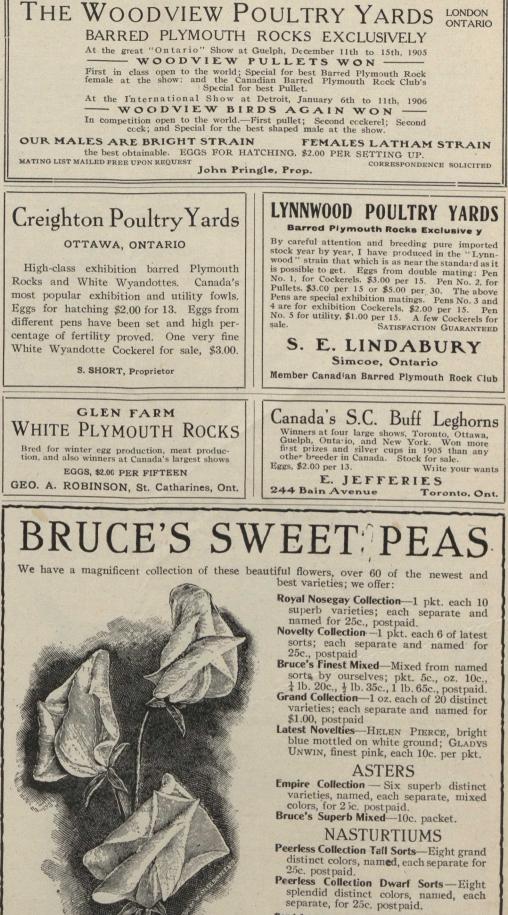
Place about 5 thermometers in a machine, one at each corner and one in the centre. See if they register nearly the same. If there is more than 2 deg. difference raise or lower one side of the machine. Try and get your machine to heat as nearly even as possible. If you find the centre of the machine very warm or other "hot spots" over the tray you will require to screen these by placing strips of tin or cloth above so as to prevent the heat, or, in other words, check the heat in this particular spot. I usually run a machine about two days before I place the eggs on the trays. If it will not work empty I do not care to try to make it work when it is full of eggs.

"The eggs are tested the 9th day. They are easily tested then, the dark ones are fertile, the clear ones infertile. After the 4th day cool the eggs on a table, the table being as large as the tray. Do not use a small table or set the tray on about $\frac{2}{3}$ of the way, for the reason that if this is done the eggs exposed over the end of the table will cool much faster and are exposed to a draft. Cool until the eggs feel cool. Another test is made on the 16th day, sometimes on the 14th day. After the evening of the 18th day do not cool any, and I would favor closing the machine then until the hatch is over.

"Do not turn eggs when your hands are dirty or covered with coal oil. This practice is common and may be responsible for bad batches. Do not expect the machine to out-hatch the perfect broody hen. Some chicks will be dead in the shell, there may be some crippled, etc., but the machine is ready to set when the eggs are ready."

HATCHING WITH HENS.

The best method of hatching with broody hens is to use a loft or pen for hatching purposes only. Darken the windows and place the nest boxes on the floor. Fill the boxes with nest material nearly full so that the hen will not have to jump down on the eggs. Set the



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