

weekly, each asking for support, and most of them seem worthy of patronage; without doubt the proprietors of all of them mean business in giving a full equivalent for the subscription paid, and to increase not only their own profits, but that also of their patrons who advertise in their periodical.

Some of these papers, are local in their influence because they are newly published, and because the matter they contain is chiefly of a nature to meet the interests of the locality in which they are published; others are sectional professedly, and hope to meet the wants of those who keep poultry in a southern climate, under conditions different from those of the east and north of the United States and British Provinces.

The difference in the subject matter of these various periodicals is very great, both as to the seasonableness of the subjects presented, and as to the correctness of the theories set forth when compared with extended experience.

The increase of cultured men among amateurs, and men of high moral sentiments, will sensibly change the literary, scientific, and moral character of the leading articles of our poultry periodicals, and only such will long survive.

As I sit at my table to pen a few lines to you, I think of the pets I have just safely housed, and are now probably unconscious of the change that awaits them in respect to season, home, and careful attention, or otherwise, of their future owners. Several things combine to lead me to reflect upon their future. To-day was windy and unpleasant, this evening is rainy, and the sound of dripping rain is, like the falling of leaves through the day, suggestive of approaching winter. I have had to travel some of late, and have seen many expensive structures for poultry in which there is little but misery. I saw one yard of four hundred young stock in which there should have been but one hundred—not a blade of fresh grass to be seen there, and on every face the anxious and lorging look gave evidence of the effect of a plenty of burning gravel and sand, and an absence of grass and insect. The sight haunts me! Will some of my fowls, when sold, fall into the hands of careless or ignorant persons, and suffer, and pine for their old home?

Some time since, I read in your excellent Review an article intended for young fanciers, in which the writer endeavored to impress such with the nature of personal responsibility, and often have I felt the force of the remarks referred to:—"You are responsible for the health and comfort of your pets; in your hands they are helpless of themselves, while you have the power to make them comfortable or to give them life or death."

I hope that those who may read this, have pre-

pared for the chilly weather now upon us, and are in earnest to screen the helpless fowls from the miseries of cold drafts of wind, of damp and filthy houses, and are alive to the fact that fowls have feelings, and that we are responsible for our creatures as we are for our children.

JOHN FLEMING.

Sherborn, Mass., Oct. 30.

### Artificial Incubation.

By WILLIAM HENRY THICK, 338 Gloucester St.,  
Ottawa, Ont.

No V.

(Continued.)

After Minasi came Mons. Carbonnier, who warmed the eggs by top contact also. This apparatus was simply constructed, and sold at a very moderate price. It consisted of a small box of light wood, with a casing of zinc to hold the water, and resting upon a galvanized metal frame. The cover was pierced with two holes, the first being fitted with a pipe to ventilate the apparatus, the second for supplying the case with water and to receive the thermometer placed to shew the temperature. He used a lamp with two wicks, fed with colza oil, which burned for twenty-four hours without being refilled, but the lamp required great and constant attention. The machines were of small size, and the egg drawer placed under the zinc reservoir held about 40 eggs. There was no rearing apparatus connected with the machine.

About the year 1869 the incubating fever again arose, and I introduced and exhibited my hatching machine in operation at the Smithfield Club Cattle Show, held in December 1870, at the Agricultural Hall, Islington, England, hatching chickens out daily, when Mr. Woods, the showman, netted about one hundred pounds sterling from the visitors who attended the show during the five days it was held, and who afterwards removed, and exhibited it at the Crystal Palace, Sydenham.

Public attention was now considerably aroused, and Mr Shroeder, a Swede, brought out his circular incubator, consisting of a galvanized iron cistern; the egg drawer under, divided into six or eight sections diverging from the centre. A lamp separate from the incubator, heated the water in a boiler connected by a pipe with the cylinder, having also an outlet to draw off the water. The tank was provided with an open tube, in which a thermometer was placed, and a ventilating tube open at top and bottom; under all was a partition or tank containing cold water. The top of the machine was surrounded with perforated zinc, partly filled with sand, to preserve the heat and to place the newly hatched birds in, a flannel curtain hanging down