

LAYING STOCK.

The laying stock numbered 151 hens and 53 pullets. A number of the pullets were rather late hatched to make early layers, and several of the hens were over two years of age. They were kept principally for sitters, while a few were good as breeders, for another year. Close observation led to the conclusion that the active winter layers numbered from 120 to 130. On the 31st December, 1896, the fowls were as follows in numbers and according to description.

(To be Continued.)

EXPERIMENTS IN BREEDING

R. P. H. Edwards of Colorado, has been experimenting as to the length of time eggs are fertilized after the removal of the male from the pen and relates his experience in the *Poultry and Farm Journal*. The first and second deductions he draws though apparently against the natural order of things are after all in the line of modern thought and are worthy of a trial. He says: "In making this experiment I am aware of the fact that it is not original with me, as many have made the same experiments before to a certain extent. I have had the pleasure of reading accounts of the same in the various poultry publications of the country; some made in private yards and some in government experiment stations, but never have I seen an account of one so extensive as the one I have just completed, although there has, perhaps been such. I made the experiment for my own knowledge and satisfaction. After I saw the result I thought it might be interesting to others, so give your readers the benefit of my work.

In the first place let me state that there was no mistake made in any way, as all birds were under lock and key, with no possible chance to mix with other birds.

Hen No. 1 hatched and raised her chicks to thirty-three days old without male bird in same yard, was then mated once, and laid as follows: June 5, 6 and 7 fertile; 8th unfertile; 9 and 10 fertile. Mated May 28th.

Hen No. 2 with chicks four weeks, mated one tread, laid eggs June 23, 24, 25, 26, fertile; 27th unfertile; 28th fertile 29 and 30 unfertile. Mated about five days before first egg was laid.

Hen No. 3 with chicks four weeks, mated to golden Wyandotte male thirty-six hours, laid eggs June 27, 28, 29,

30, July 1, 2, 3, 5, 6, 7, 8, 10, 11, all fertile; July 12, 13, 15, 16, 18, all unfertile. Mated about one week before first egg.

Hen No. 4, B. Plymouth Rock hen with white Leghorn cock, changed to golden Wyandotte cock. Laid nine eggs six to Leghorn cock and three to Wyandotte cock. The six eggs laid to Leghorn cock and the first egg after the change, hatched white chicks. The second and third after the change, black chicks.

Hen No. 5, R. C. W. Leghorn, taken from breeding yard July 28th, been with Leghorn cock all season, left one day alone, then mated with a G. Wyandotte cock for two days, July 30 and 31. Laid July 29 and 30, August 1, 3, 4, 6, 8, 11, all fertile. Chicks from eggs laid July 29, 31, pure white. All laid after that, black feathers in back.

Hen No. 6, R. C. W. Leghorn from breeding yard, laid July 30, August 1, 3, fertile, afterwards all eggs unfertile. This hen laid the least number of fertile eggs of any. Her eggs being the kind having porous shell, instead of a smooth and solid shell.

Hen No. 7. R. C. W. Leghorn from breeding yard, laid July 29, 30, August 1, 2, 4, 5, 7, all fertile. No more eggs fertile.

Out of all fertile eggs laid, not a single one but what hatched a strong, healthy chick; the hens always hatching every egg they had under them.

The conclusions I draw are these:

First—A hen mated with male bird once every five days, at least is sufficient, and is better than running with male all the time.

Second—Better, because of hen being worried less, the chicks will hatch stronger. This law holds good in the higher order of animals and we think it will with the hen.

Third—As in case of hen Nos. 4 and 5, a hen changed to a different male, eggs will hatch to the last male from the second or third egg after the change. But from the fact that No. 3 laid fertile eggs up to and including the 13th egg from one mating, we should be afraid to sell eggs as pure-bred from a hen that had not been mated with a pure-bred cock at least fifteen days. But right here let me say that I remember a case some four years ago, of a C. I. Game hen that I had shipped from Ohio, that had been running with a B. P. Rock male. As soon as she arrived here she was mated with a C. I. Game cock. The chicks from her first two eggs laid after her arrival here were B. P. Rock cross. No sign of the P. Rock appeared in any chick after the first two.