Notes on Table IV .- Moisture Machines vs. Dry Machines.

The results from the 1907 Prairie State machines leave no room for doubt that moisture increases the hatch and the vitality also.

In nearly every other make the results practically point in the same direction. With the 1905 Cyphers the results are not very different, but I would like to try moisture earlier in the season, and in parallel hatches, to test lai as was done with the Prairie State machines.

With Prairie State machines, it will be noticed that the moisture machine has less fully formed dead chicks in the shell, it hatches more and I do chickens, a higher per cent. of the fertile eggs, as well as a higher per vet. to m cent. of the total eggs set.

There is a difference of 10.9 per cent. of the eggs set, or 13.1 per cent. the fully i

of the fertile eggs in favor of the use of moisture.

If a comparison be made between the two methods of operating as to the percentage of live chicks to the eggs set, we find that all the moist machines average 35.9, or if we eliminate those in which the tarry compound was used we have an average of 32.3, whereas all the dry machines give but 13.4, or eliminating the one in which the tarry compound was used they then average 12.1, or, in other words, 100 eggs hatched in the machine when operated without moisture gave us 12.1 chicks alive at four weeks of age, and 100 eggs hatched in the machine with moisture gave us 30.3 chicks alive at four weeks of age.

Buttermilk used in the moisture pan beneath the eggs appears to add vigor to the chicks. The buttermilk was changed every four or five days in nearly all machines. I cannot account for the heavy mortality in the

1905 Cyphers set May 30th.

With the Cortland incubator, through some accident, the lamp went The incubator room had several windows open and a gust of wind may have blown out the lamp. The chicks in this hatch I think were chilled. Buttermilk gives sufficient moisture in nearly all instances to keep the evaporation nearly equal to that of a hen.

Whole milk supplied the moisture but did not increase the hatch or

the vitality of the chicks.

When zenoleum was used the vitality was very good.

As compared with buttermilk, one is led to believe that the acid of the buttermilk has some action on the shell or contents, hence a chick higher in vitality is produced.

NOTES ON TABLE V .- MACHINES WASHED WITH A TEN PER CENT. SOLUTION OF ZENOLEUM.

This substance evidently has some beneficial action, the exact nature of which we do not know. The highest mortality, also the lowest, are from dry machines. I would use this substance in every machine set, in preference to anything we have used to date. It has worked satisfactorily on one large poultry farm in New York State.

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