The man who must raise his poultry on a limited area of ground, should keep fewer fowls. Is it not better to keep one hundred fowls from which you can produce  $\epsilon$ ggs that will hatch from (75 to 95 per cent of all fertile ones) than to house, feed, and care for two hundred fowls to produce eggs of which fifty per cent are infertile, and only from thirty to forty-five per cent of the fertile eggs hatch.

Wriggle around it as you please, you cannot disregard this advice and succeed.

Those who have large tracts or land, but, because of keeping several breeds or varieties of fowls, are obliged to keep them in yards, should either enlarge their yards beyond (apparently) all reason, or at least beyond any size you ever saw before, and allow plenty of range for exercise and cleanliness, or reduce the number of varieties and give each yard of fowls an extra grassy yard to pasture in for two hours each day; or, better still, keep but one variety and make kindling wood of your fences. Colonize your flocks on the Stoddard "no fence" plan, and you will have eggs that with proper assignment and division of males and females (fowls) will show up ninety per cent of fertility, and in good incubators, produce from eighty to ninety-eight per cent of strong healthy chicks.

How do we know?

We have done it. The proof of the pudding is in eating it. Now let us look at a few other causes of chickens dying in the shell; for you know it is quite possible to kill a vigorous germ, or even a full grown chick, by improper treatment. A poorly contrived incubator or a bad hen can easily destroy the life in the shell at any stage of incubation ; or a careless or headstrong operator of a good incubator can spoil the hatch by what may seem to him a very insignifiant deviation from the instructions of the maker of the machine. Too much or too little moisture, heat or ventilation may ruin a hatch. Lack of moisture, at the time it is needed, or excess of moisture, when none is needed, will injure or destroy life in the batcher. If the machine is deficient in any of these particulars, do not use it, but get one that you can depend upon.

You will also remember that eggs of various breeds vary considerably in shell, some shells being thin and porous, some thick, yet porous, while others are thick and dense, or hard, and still others are hard and thin. Chilling the eggs, especially during the last part of the hatch, or while chicks are breaking the shell. causes many to die in the shell. S J. ANDRES.

## The Bairy.

## A FEW SUGGESTIONS TO BEGINNERS.

Usually at this season of the year, great activity is noticeable amongst the dairying community, cows coming in, milk increasing and consequent preparations and changes in the daily routine made to most advantageously dispose of the product of the cow.

This activity is perhaps more general with the cheese factory and creamery proprietors, than with the producers of the raw material, which latter do not as a rule bestic themselves without the former taking the initiative.

Now is the time that creameries are changing buttermakers or assistants, and new creameries starting up and young and, I hope, ambitious buttermakers starting out.

I say young and ambitious buttermakers, not necessarily young, but essentially ambitious; who but the ambitious can hope to overcome the difficulties which are sure to be encountered not only in their first year's experience but throughout their subsequent career as buttermakers. Ambition is the foundation of perseverance, which is required every second of the day, which must in fact become, if not already so, habitual.

These difficulties, assuming during the first year gigantic proportions, confronting the novice suddenly without any warning, gradually diminish with experience, being in themselves experience, and if intelligently overcome, soon have no other effect than to stimulate that care and watchfulness which alone make buttermaking no haphazard occupation.

If I imagined, that by enumerating these many difficulties with specific remedies, I should be aiding the beginner more than by advocating the prevention of these difficulties, I would certainly now follow the former line of thought. But this is not my intention, for as I have already said, these difficulties are one's experience, and nothing but experience will bring success. Let the novice be at his post a week before the commencement of operations, the boiler perhaps needs cleaning, it certainly needs to be steamed up in order to detect