

rather orange than lemon. By breeding the orange of the brown red with the white of the Birchin, the desired lemon is produced. But in doing this one needs to be careful that the Birchins are sufficiently hard in feather, or one fault will be got rid of at the expense of another. Indeed, in all breeding operations it is necessary to keep track of many factors if progress is expected to be made.

POULTRY HOUSES IN MANITOBA.

AT the recent convention of the Manitoba Poultry Association in Winnipeg the following paper was read by Mr. E. Hughes, of Brandon, on "Poultry Houses—Their Construction, Heating and Ventilation."

Mr. Hughes said: "Further and further each year, from their original habitats, is man transporting the birds and animals which he has domesticated. The horse was a native of the latitudes where the elephant made his home, but man has transported him to Iceland, on the confines of the Arctic Circle. From India, Persia and Egypt came the first domesticated fowls, but they are now to be found at the outposts of a civilization that, decade after decade, stretches further towards each pole. As birds and animals whose natural homes are semi-tropical are, to a more or less degree, exotics in higher latitudes, so in proportion to the climatic changes they experience in their forced migration, their mode of life becomes artificial. This artificiality of surroundings in many cases leads to loss of vitality and liability to disease, the latter condition, mark well, always closely following the footsteps of the former. The precautions against the rigor of the climate, if not intelligently taken, may prove fatal, while exposure might have been successfully withstood.

Domestic fowls in the centre of this continent along the 50th parallel of latitude, where the average temperature has been 25 below zero for weeks, may survive surprising trials, but those whose interests lie in the direction of improving poultry or deriving profit from their culture, can never afford to be content with bare survival. It is the providing one group of comforts and protection from one group of unfavorable surroundings without denying other groups that constitutes the highest degree of excellence in management. The intelligent poultry fancier, who spares neither expense or trouble in overcoming climatic conditions, is a benefactor to poultry interests. His lavish expenditure in experiments and luxuries, do what he will, benefit the watchful, prudent breeder. The failures are a warning that certain courses are dangerous or useless. The successes are, in the way

attained impossibilities to the practical man, but frequently they demonstrate the desirability of certain conditions, and plans which the thrifty man of resource will manage to attain in an inexpensive way; or previously attained knowledge will tell him the desired end may be attained by means of some simple substitute. The sum of human knowledge of our every-day industries is the result of innumerable experiments and every tier of material in the edifice stands on the solid foundation of a hundred failures. The great failures in poultry ventures are, to the man of resources, object lessons, and the man who can thoroughly investigate one of these and not carry away a practical lesson, is not an ideal poultryman. By intuition and habit, women are in some ways more resourceful and observant of little details than men. Evidence of this is easily seen in the poultry yard, and the writing of many ladies, whose able works adorn the pages of poultry literature. Men's writings generally savor of the directions at the bottom of a doctor's prescription, so many teaspoonsful, three times a day. A woman's nursing care is with the patient day and night.

The poultryman's work is one of constant watchfulness and unlimited power to provide some cheap and handy make-shift of every convenience. The history of the Tam O'Shanter hat is illustrative of the constitutional requirements of both the practical poultryman and poultry fancier. In Scotland long ago, the chief of a clan, that was among the wildest of the age and country, paid a visit to a more southern chieftain, one of great wealth, and one polluted with the effeminate luxuries of continental and Sassenach foppery. The visitor's couriers discovered some of the retainers of the intended host without themselves being seen, and quickly reported to their chief that all the clansmen, even to the poorest, wore some kind of gear or covering on their heads. This previously unheard of dudsiness was a knock-down blow. Consternation spread in the camp, as the pride of this particular clan was in proportion to their poverty in this world's goods. They felt like dubbed pit Games in a yard of crested Polish, where the rules said fighting was bad form. A council was held and a scheme devised, by which head gear was provided by the time that it was necessary for the visitors to parade before the pampered menials of the money lord. Each henchman proudly strode up to the castle, a round thick disc, surmounting his shock of unkempt locks, innocent of all covering before. How were these round thick discs so quickly provided? The suggestion came from a man of resource. He found them, the model of the Tam O'Shanter hat, that passport to a Scotchman's heart, without which to some, the bonspiel would be tame. He found them neglected, parched by sun