

Poultry and Pigeons.

ARTIFICIAL INCUBATION.

Probably the first attempts at artificial hatching took place in India or China, where, to this day, they use decayed organic matter for hatching out ducks' eggs. Pliny, in his writings, speaks of the Egyptians hatching their eggs in large vases. In Egypt later on, and even up to this day, an enormous quantity of eggs are continually being hatched in underground ovens. These "*mamal-el-jerrug*," each of two stories, one being underground, are constructed somewhat as follows:—The lower of the two floors is generally a yard and a half high, two yards wide, and three or four long. From this compartment a door leads into a corridor and a hole in the roof is the communication with the floor above, a similarly constructed apartment. Several of these ovens, each containing two separate floors are connected by holes in the walls of the higher compartments, and apertures in the end are also made for purposes of ventilation. The eggs are first placed in the lower apartment of each alternate oven in three tiers on chaff, each tier being separated from the next by this packing. The lower ovens are heated by burning or rather allowing cow-dung mixed with straw to smoulder in the upper rooms. This fire is constantly renewed and kept up by the attendants, men who for generations have gained their livelihood by the produce of these ovens. So accustomed are these people to judge of the proper temperature, that they keep a heat regular to five or six degrees, it is said, although they have, of course, no thermometer to serve them as a guide. After ten days, the eggs are taken to the upper story, the fire being still maintained as before in one of the top ovens, and they then receive their heat laterally through the holes in the wall. The lower compartments, hitherto unused, are now filled with eggs, which in their turn are taken to the upper story as fast as the first ones hatch out. This point of allowing plenty of ventilation after 10 days is worthy of all attention, and is made a strong point of with the present successful Hydro-Incubators. As soon as the chickens hatch they are conveyed to a properly warmed room, and later are confided to the care of persons specially devoted to their bringing up.

In this method of artificial hatching the heat for the first ten days is from above, the last part of the time it reaches the eggs laterally by means of the hot air which comes from the neighboring oven. Of course, in such a process the entire success depends upon the skill and care of the operators. As a rule, they are said to rarely exceed 98 or 100 degrees Fahr., and seldom to fall below 90 deg. Every 15 or 20 villages has its mamal. The inhabitants carry their eggs to it and return on the twenty-second day to receive, generally speaking, 300 chickens for every 800 eggs.

Charles VII., of France, attempted artificial hatching on this principle at Amboise, but without much success. Then came Beaumour, who followed the Chinese method, and later on we find the records of very considerable success obtained by Bonnemain. This physician is the first who attempted heating the eggs by means of hot water. Up to 1814, Bonnemain appears to have successfully worked an incubating establishment in Paris, sufficiently large to produce 1,000 chickens each day. Be this as it may, it is unquestionable that he provided the Paris market with immense quantities of poultry. He was ruined by the events succeeding the battle of Waterloo, and issued circulars in which he stated that one of his incubators working constantly would produce \$500 worth of poultry a year. He allowed half this amount for expenses, and declared the balance to be the profit obtainable. His incubators were very large, and were built upon the premises. They were

very expensive, but the fact of his establishment existing from 1800 to 1814 proves, that although perhaps exaggerated, he must have derived very considerable profit from his artificial hatching and rearing.

In 1855, the first so-called Hydro-Incubator was exhibited by Mr. Gerard, in France, who in his circular claimed, if not the full invention, at least to have much simplified and cheapened the means of artificial hatching. His system was to provide the heat by means of a hot-water cistern, connected with indiarubber, placed in contact with the top of the eggs. Mr. Gerard maintained the heat of the water by burning a charcoal fire let into the cistern in a cylinder. He was also probably the first to produce a portable artificial rearing mother. Expense and trouble in working, however, eventually caused Mr. Gerard to give up his idea. The next hot-water incubator was that of Cantelo, which was exhibited in England, and marked a greater advance than any before it. Into the question of incubators of the present day we are not prepared to go at this time, this article being simply a retrospective glance at what has led up to the perfect machines now in use.

THE TIME ALLOWANCE.

It is but a matter of common justice that the fancier whose loft lies farthest from the point of loosing should have an advance of time, as his birds must fly a greater distance. Some fanciers purpose allowing one and a half minutes to the mile, others will not allow as much, and others pretend that the Belgian system, which awards the prizes to the birds flying the mile in the shortest time, should be adopted. This last, I think, is the most equitable, as, with a light, contrary wind, a bird needs two minutes to the mile, while with a strong, contrary wind it would need four or five, particularly when it is nearing home and tired out. On the other hand, with a good breeze favoring, it will fly a mile in a minute, and sometimes less; but this is another reason why the Belgian system of the actual speed should be adopted here. I will give here an instance where the giving of so much per mile worked very disastrously for the Brussels fanciers. In a concours Aug. 7, 1879, from Nemours (350 miles) 394 birds flew for prizes of honor and other prizes. A number of fanciers of Lierre, 40 kils. further than Brussels from the starting point, took part in the race. The members of the society bolting against the accepted rule of the actual speed, allowed one minute per kilometer for the difference that the birds had to fly farther. The day of the race the wind favoring the birds, the consequence was that, of the 52 prizes, the Lierre and neighborhood fanciers won the first 33 prizes, and 45 of the entire 52. *L'Épervier* of August 24, giving the result of the race: "Notwithstanding the generally acknowledged superiority of the system of time measure for the classification in our colombophilic concours, there are still to be found fanciers deaf to the lessons of experience, and that prefer to remain true to the old regime in their system of classification. To all such we recommend a careful study of the result from Nemours, flown last Sunday by the society 'la Roue d'Or.' The first pigeons that arrived had attained a speed of 1600 metres per minute, and the rules of the race were that, according to the distance to be flown, the fancier would either lose or gain one minute per kilometer.

"It has turned out that, under these circumstances, the fanciers living farthest have been favored to such an extent that they have won all the first prizes; in fact, the places situated at 40 kils. from Brussels have had an allowance of 40 minutes, whereas, by the actual speed, they would only have had 34, which is a fair calculation when the exceptional speed attained by the birds last Sunday is taken into consideration.

"The result of this concours has already borne fruits: The society 'La Libre Union,' of Brussels,

greatly affected by the sorrowful consequences to which the concours are exposed under the old system, at the last moment has decided to adopt the time measure for its concours from Etampes, to-day. We hope that all societies still following the old system will do better hereafter in dropping it for the 'actual speed.' We are certain not one voice will be lifted against this plan which we have always advocated."

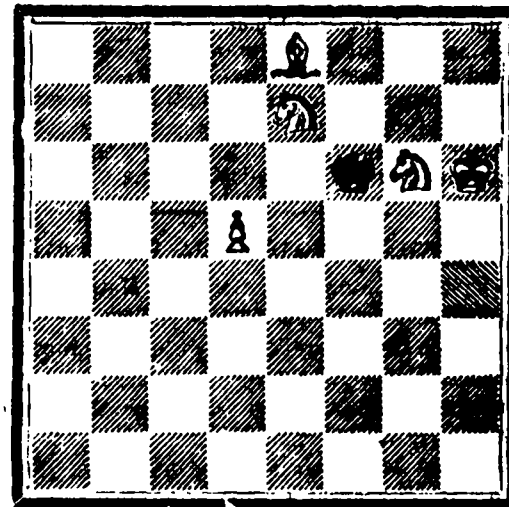
Whatever system is adopted by the majority of the fanciers of this vicinity, I will submit to it with a good grace; but, if after long years of experience, our Belgian friends accept the actual speed as best, we should think it over well before adopting any other course.—*John Van Opstal, in the Fancier's Journal.*

Chess.

All correspondence for this column should be addressed to the "Chess Editor," TOWN AND COUNTRY Toronto.

Problem No. 9.
From "Brentano's Monthly."
By O. E. Burlingame.

WHITE.



BLACK.

White to play and mate in 8 moves.

ZUKERTORT vs. ROSENTHAL.

This match has been concluded, Dr. Zukertort winning the 18th game. The final score stands, Zukertort 7, Rosenthal 1, drawn 11.

A WORD TO THE FAIR SEX.

We clip the following extracts from a recent article on chess in the Philadelphia Times:

Do you know that around the game of chess there hangs the perfume of sweet love romance? That while lustrous eyes have strayed over the checkered field to find a mate, hearts have mated with scarce so much of seeking? Why, fair one, love and chess are twin conspirators to steal men's hearts! Come, will you not play? If you are single chess bribes you with a husband; if you have one already, throw its magic spell about him and keep him at home at night. Chess is a mental disciplinarian of the highest order. Benjamin Franklin, when he said that the faculties of foresight, circumspection and caution might be so developed by chess playing as to become habitual in the sternest battles of life, was no doubt enthusiastic at the expense of correctness; but that like Algebra, it develops and strengthens the powers of the mind, there can be no doubt. As it calls into continual use the faculties of imagination, memory and analysis, the result must be the strengthening of the powers for other purposes. When we lift a weight at the gymnasium we accomplish nothing directly, but the muscle is made larger and firmer, and in good time our strong arm may save a life.

BREVITIES.

Some of the St. Louis amateurs who played against Mr. Judd in the recent match, intend challenging him to single-handed games.

In the Hamilton Chess Club Correspondence Tourney, nineteen games had been finished up to July 1st. Mr. Henderson, Montreal, winning three games. Messrs. Robertson, Clawson, Anderson and Foster two games, and Messrs. Bowan, Shaw, Marroway, Hicks, Mohle, Judd (Hamilton), and Braithwaite one game each, and a draw between Messrs. Bowan and Anderson.