



A FLOCK OF CANADIAN CHANTECLERS

FRONTISPIECE. The picture was made on the grounds of the poultry plant at La Trappe, Canada. This is another breed "made to order," to meet a special set of conditions. The method used was to mix together the various desirable ingredients, and sift out the qualities needed by means of "the sieve of selection." The purpose in creating the breed was to get one eminently fitted to Canadian conditions: all fancy characters were eliminated, especially those that were considered undesirable. It was to be an all-purpose breed: a good winter layer, and heavy enough to be useful for meat as well. (See text, p. 148.)

CHANTECLER POULTRY

A New Breed of Poultry—Developed to Meet the Winter Conditions of the North¹

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IT IS a surprising fact that, although most of our breeds of animals are of relatively recent origin, the exact way in which they have been originated is known in but a small number of instances. In earlier times many breeds, like Topsy, "just grew" until they came to have general recognition; then standards were formulated and special societies organized by their admirers. In more recent years several breeds of poultry have been produced in which the process has been a more deliberate one, or at any rate, in which the records have been more adequately preserved. One of these, the Lamona, has been fully described in this JOURNAL,² and it may therefore be appropriate to follow this with another, which has been named "Chantecler." This new "creation" in the poultry world is of interest because of its type and the purposes it is meant to serve; but not the least of interest in connection with it are its place of origin and the circumstances connected with it.³

Just north of St. Anne de Bellevue in the Province of Quebec the Ottawa River, before sending its four arms reaching out for the St. Lawrence, widens into the picturesque Lake of the Two Mountains. Both village and lake are famous in the annals of the early French explorers and fur traders. On the north shores of the lake are the two "mountains" which served as unmistakable landmarks to the *voyageurs*, and from which the lake received its name. They are, in reality, two large rounded, wooded hills, one towards either extremity of the lake. Nestled in the saddle between them, in

an atmosphere of quiet seclusion and medieval picturesqueness, is a Trappist monastery, the silent monks in their striking dress, engaged in their labors and devotions, adding a touch of realism to the picture. Here, too, one meets a cordial welcome, and a truly medieval hospitality. Connected with the monastery, and under the able direction of Father Leopold, is the Institut Agricole d'Oka, one of the two Agricultural Schools for the French speaking population of the Province which receive Government aid. The school, which is at a little distance from the monastery, is incongruously modern in appearance, and tends to dispel the impression of medievalism that one might have formed. Any such impression is entirely destroyed when one goes into the thoroughly up-to-date dairy barn and looks over the excellent herds of Ayrshire and Canadian cattle, or when any of the other farm practices are inspected. In all these is a modernism that is entirely at variance with the first-formed impressions of the place.

In a beautiful little valley near the monastery, with a rushing mountain brook tumbling through it, is the poultry plant, presided over by Brother Wilfrid, who is the poultry husbandman of the Institute. Here, then, is the cradle of the "Chantecler." It is a delightful setting, but from a purely practical standpoint the land in the valley is rather too low and damp to be ideal for poultry.

Brother Wilfrid states that his purpose was to create a purely Canadian breed, and one that should be eminently

¹ Papers from the Department of Genetics, Wisconsin Agricultural Experiment Station, No. 35.

² LAMON, HARRY M., Lamona—A New Breed of Poultry. *Journal of Heredity*, XII:1-29. 1921.

³ The facts used in this account are in part from a small pamphlet by Fr. M. Wilfrid, *Standard, Origin and Monography of the Canadian 'Chantecler'*, La Trappe, P. Q. 1919, and in part from a recent visit at La Trappe by the writer. The breed has also been noticed in the *Reliable Poultry Journal* for December, 1921.

practical for Canadian conditions. To this end he desired to eliminate as far as possible all purely "fancy" characteristics, especially such as might be disadvantageous. He was, he states, "aiming at something more practical than mere outside appearance to please the eye." Having had experience of the danger of freezing of combs and wattles in severe winter weather, he determined to reduce these to a minimum. As for color, white was decided on, though he does not state whether he believed this color has any economic advantage over others. Doubtless the fact that most other colors and patterns require much selection to maintain was a factor in this decision. Beyond this the new breed was to be a general purpose one; the hens should be good winter layers, and still the type should be such that it would serve well for meat purposes. "My ideal being fixed," he adds, and "knowing what I desired, but not possessing the power of creating something from nothing, I considered a judicious crossing of the best breeds, as far as eggs and flesh were concerned, was the best course to venture." In other words, he adopted the obvious method of mixing together the available ingredients of his new breed, and then by the sieve of selection, straining out the combination desired.

In casting about for the desired qualities the Cornish was selected as the starting point, since it seemed to possess to a high degree the general conformation, vigor, and type of comb and wattles desired. For high laying qualities the White Leghorn offered obvious material, while the Rhode Island Red, Wyandotte and Plymouth Rock it was thought might help winter egg production.

The first crosses were made in 1908, a dark Cornish being bred to White Leghorn hens in the one instance, and a Rhode Island Red cock to White Wyandotte hens in the other. It is stated that "the hens in these first two crosses are white," though this is

modified by the further statement that the first mating gave "a bird of a grayish colour, with feathers very short, closely set to body, and of slender shape, whilst the head showed neither comb nor wattles." In the Rhode Island Red by Wyandotte cross the white is said to have dominated, but "with a splashing of gray and black," while among them was a "beautiful cock, a real Columbian Wyandotte." It is difficult to reconcile Brother Wilfrid's results in this latter cross with those of other experimenters, who have found the white of the Wyandotte to be recessive.⁴ Brother Wilfrid is convinced of the truth of the dictum that "the female gives the colour and the male the shape," though it must be pointed out that by many poultry breeders exactly the opposite is claimed to be the case. Genetic experiments have proven that in most cases the color has no relation to sex in inheritance and such a relation to type has not been substantiated.

In succeeding years various crossings were made, but selection was always towards the desired type. In 1909 the whitest pullets from the Cornish-Leghorn cross were mated to the cock from the other cross which resembled a Columbian Wyandotte. This gave a variety of color and type,—some were dirty-gray, some speckled, while in general character some resembled Leghorn, some the Rhode Island Red, and others the Cornish. The latter type predominated. The following year (1910) a White Plymouth Rock was crossed in, a fine 9¾ pound cock being mated to the pick of the previous year's pullets. This cross improved the color, but the results were otherwise disappointing. Continuation of the selection, however, began to tell in the following two or three years, by which time "the colour was almost uniform, the laying capacity had increased considerably, the comb and wattles were disappearing and the birds had proved to be very vigorous and active."

⁴ See for example, LIPPINCOTT, Further Data on the Inheritance of Blue in Poultry, *American Naturalist*, LV:289-327. 1921.



THE BIRTHPLACE OF CHANTECLER

FIGURE 1. This new poultry "creation" was developed by Brother Wilfrid, a Trappist monk in charge of the poultry department of the Institute Agricola d'Oka. This school is one of the two agricultural colleges receiving government aid that are available for the French-speaking people of the province of Quebec. It lies in a beautiful valley between the two wooded hills that give name to the Lake of the Two Mountains, a picturesque region whose history is linked with the thrilling adventures of the early trappers and explorers. (See text, p. 147.)

In 1913 a somewhat different method of breeding was inaugurated. The birds were divided into two flocks, in one of which inbreeding was practiced to a certain extent, while a Wyandotte cock was used with the others. Selection continued to be effective, and by 1916 Brother Wilfrid felt that he had nearly reached the end he had been striving for, except that his birds were not quite up to his desire in weight and fleshing quality. One exceptional pullet, however, in 1916 weighed $7\frac{3}{4}$ pounds at seven months of age and produced 91 eggs in the four months from November 1916 to February

1917. This pullet was bred to a White Plymouth Rock cock and the finest cockerels from this mating were used to head the two flocks.

Brother Wilfrid admits that there has been and still is "atavistic" tendency, but this is naturally only what is to be expected in a breed of such recent and mixed origin. The uniformity is such, however, that the "Chantecler" was recognized as an established breed by the American Poultry Association in August, 1920, and admitted to a place in the "Standard of Perfection."⁵

⁵ The confusion which arises from the formation of a multitude of breeds by different combinations of a limited number of characters is strikingly illustrated by remarks of Mr. John H. Robinson in the *Reliable Journal of May*, 1922, where he refers to the "Babel of Breeds," in a discussion of the work of the Revision Committee of the American Poultry Association. With a reference to the Chantecler he says:

"Something very like a shiver went through the Revision Committee as the members, when considering the Standard for the Chantecler, made the discovery that there is such an amazingly close resemblance in the ideal illustrations of the Chantecler, male and female, submitted with the petition for its admission, and the ideal illustrations of Buckeyes in the 1915 Standard that the Chantecler could be described as a White Buckeye with a 'cushion comb' instead of a 'pea-comb.'"



CHANTECLER AND HIS WIFE

FIGURE 2. The parents of this all-Canadian breed are the Cornish, the Leghorn, the Rhode Island Red, the Wyandotte and the Plymouth Rock. The first crosses were made in 1908; the breed was recognized by the American Poultry Association in 1920. There is still considerable variation, as would be expected in a strain so recently developed, and of such varied ancestry. Note the heavy plumage, and the small comb and wattles, both characters of great importance in withstanding the severe Canadian winters. (See text, p. 148.)

In a casual inspection the "Chantecler" shows strongly the Cornish contribution to its ancestry. Not only is this apparent in the comb and wattles, which are reduced to a minimum, but especially in the carriage and in the strong, broad breast. The bird is heavily and closely feathered, vigorous and alert, and on the whole seems well adapted to withstand severe winter conditions. Exhibits of the breed at Montreal have shown a large percentage conforming to the "Standard," and the flock as seen at La Trappe exhibits greater conformity than might be expected after so few years of selection. It can scarcely yet be considered as fixed in type; it will require the continued efforts of Brother Wilfrid and other admirers of the breed to get its characters as well established as they are in some of the older existing breeds.

Incidentally, it should be mentioned that the "Chantecler" is not the only production for which the monastery is famous in the Province. It has in addition a considerable reputation for its Oka wine, Oka cheese and a special selection of muskmelon, the Oka melon, which is especially served by one of the exclusive hotels of Montreal.

Following is the standard for the "Chantecler" as adopted by the "Association des Eleveurs de la Poule Canadienne 'Chantecler:' "

MALE

Head: Short, large skull, indicating a strong constitution.

Beak: Stout, slightly curved.

Eyes: Medium size, almost round, with a bright expression.

Comb: Cushion-shaped, rather small, set firm on the fore part of the head; the front and rear square and not with any point, level surface, smooth and not covered with small round points.

Wattles and Ear-lobes: Rather small, of a smooth texture. Ear-lobes oval shape, wattle almost round.

Neck: Medium length, slightly arched, becoming smaller near the head; hackle abounding, flowing well

over shoulders with no apparent break of cape.

Wings: Well folded, the points of flights well covered by saddle feathers.

Back: Long, broad in its entire length; slightly curving at bottom of tail. Saddle feathers abundant.

Tail: Of medium length, carried at an angle of 45 degrees above the horizontal. Sickles of medium length, slightly extending beyond the main tail feathers which can be seen through.

Breast: Large, deep, well rounded, prominent.

Fluff: Short and full.

Body: Long, large. (Feathers closely set to body.)

Legs and Toes: Thighs of medium length, large, well covered with soft feathers. Toes straight, four in number for each leg.

FEMALE

Head: Short, small, with large skull, same as rooster.

Beak: Stout, strong, slightly curved.

Eyes: Medium size, almost round.

Comb: Cushion-shaped, very small, level surface, smooth and not covered with small rounded points, square at the front and rear.

Wattles and Ear-Lobes: Very small, scarcely perceptible.

Neck: Medium length, arched, becoming smaller near the head.

Wings: Well folded and of medium length.

Back: Long, 'broad at shoulders, slightly sloping near the saddle and slightly curving near the tail.

Tail: Medium length, carried at an angle of 45 degrees above the horizontal.

Breast: Large, full, well rounded, prominent.

Body: Long, large. (Feathers closely set to body.)

Fluff: Short and full.

Legs and Toes: Thighs of medium length, well covered with soft feathers, shanks of medium length, bare and well set apart. Toes, straight, of medium length.

COLOR IN BOTH SEXES

Beak: Yellow.
Eyes: Reddish bay.
Comb, Face, Wattles and Ear-lobes:
 Bright red.
Plumage: Snow white.
Shanks: Yellow.

DISQUALIFICATIONS

Specimens having any of the following defects are subject to disqualification:

White in ear-lobes.

One or more feathers foreign to the breed.

Comb that is not cushion-shaped.

Legs any other colour than yellow.

One or more feathers or unmistakable indication of feathers on shanks and toes.

Wry tail and any other deformity inherent to other breeds.

STANDARD WEIGHT

| | lbs. | | lbs. |
|--------------------|------|------------------|------|
| Cock | 9 | Hen | 7 |
| Cockerel | 8 | Pullet | 6½ |

Social Hygiene

THE LAWS OF SEX, by Edith Houghton Hooker. Pp. 373. Rational Sex Series, Boston, Richard G. Badger, 1921.

To the genetist, the title of this book is something of a misnomer, as it deals principally with prostitution and the venereal diseases—distinct problems which the author does not always differentiate carefully enough. The tone is that of the so-called feminists, with its underlying accompaniment of sex-antagonism. The volume should have been edited by some one who would have removed at least the more glaring of the numerous inaccuracies and loose statements, e.g. (p. 102) "It has now been discovered that one additional chromosome receptor comes from the female parent which may presuppose an accentuated maternal inheritance." And why should remarks like these (p. 197) be printed: "Syphilis is the only disease known to humanity as being definitely hereditary. . . . Later researches indicate that a syphilitic child has probably never been born of a non-syphilitic mother, for through the

placenta the spirochetes have ready access to the maternal circulation." Why not simply say that syphilis is *not* hereditary, but is transmitted to a child *in utero* by an infected mother? Again, what confidence can be placed in an author who seriously asserts (p. 90) that in the United States "Only one child out of five lives even until his first birthday," and (p. 89) "In America, where the transmission of knowledge of birth-control methods has been made a felony, of all the children born only one child out of fifteen lives to reach his twenty-first year." The first life expectancy table to which I turn tells me that of 100,000 children born in a given period, 88,538 will be alive at the beginning of the second year, and 81,506 at the end of the 14th. This is doubtless not exact, but compared with Mrs. Hooker's figures it is micrometric accuracy. The author presents a detailed program for solving what she is pleased to call "the social evil"; the single standard of morality is the foundation of her recommendations, many of which are good.—P.P.